Smithsonian Institution 9-26-119
Mexico Vera Cruz

MONTHLY WEATHER REVIEW.

WILLIS L. MOORE, Chief U. S. Weather Bureau.

Vol. 38. APRIL, 1910. No. 4

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Price of a single copy, 35 cents; $4.00 per year. Foreign postage additional. District separates, 5 cents each.

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Climatological Data for April, 1910.
DISTRICT No. 1, NORTH ATLANTIC STATES.

WILFORD M. WILSON, District Editor.

GENERAL CLIMATOLOGICAL CONDITIONS.

The month of April, 1910, was characterized by an unusual excess of both temperature and precipitation, and was remarkable for the absence of those periods of cold weather that usually occur at this season of the year. The current month was the warmest April in a period ranging at different stations from about 10 to nearly 40 years. It was a very favorable month for the growth of vegetation, though at times the soil contained too much moisture for the best results to growing crops. Excessive rainfall attended the storms that passed over the district on the 16–18th and the 24–26th, causing numerous washouts, landslides, and damaging freshets, particularly in southern New York, north-central Pennsylvania, and New Jersey.

TEMPERATURE.

The average temperature for the district was 53.1° and ranged from 48.7° in New England to 56.8° in that part of Virginia included in the district. The unusually warm weather that characterized the last of March continued throughout the first decade of April, and, although somewhat cooler weather prevailed during the remainder of the month, especially in the first half of the second decade, the current month takes rank among the warmest Aprils in the past 25 years. The excess of temperature averaged over 5° daily in New England, New York, and Pennsylvania, but decreased gradually southward to about 3° in Virginia. At some stations in New England and New York the average daily excess ranged from 8° to 10°.

The highest temperatures of the month were generally recorded in New England and New York on the 5th and 6th, but for the remainder of the district on the 30th. The lowest temperatures occurred generally from the 12th to the 14th, except in Virginia where the minimum of the month was recorded on the 8th. Frosts and freezing temperatures occurred in the northern sections at different periods, and light frosts occurred over the southern part of the district during the third decade, but without material damage.

PRECIPITATION.

The average precipitation for the district was 4.60 inches, which is about 1.56 inch above the normal for April. The distribution was decidedly uneven, the greatest and least amounts reported being 10.37 inches at Laurel, Md., and 0.62 inch at Jacksonville, Vt., respectively. The total precipitation for the month was generally lightest over the New England States, where the average was 3.07, which is very near the April normal, and heaviest in central Maryland, where it ranged generally from about 7 to 10 inches. Over southern New York, eastern Pennsylvania, New Jersey, Maryland, and Delaware the precipitation was remarkably heavy and occurred mostly at excessive rates with the storms of the 16–18th and 24–26th. There was practically no snowfall during the month, except in the colder parts of New York and New England where a number of stations reported from 4 to 10 inches.

Light rain was recorded quite generally in New England on the 1st, but there was little precipitation elsewhere until the 4th, when light rain occurred over practically all of the district, except Maine where the fair weather continued until the 7th. From that date until the 13th the weather was generally unsettled and comparatively cool with frequent light precipitation of very irregular distribution. Snow flurries were common in the colder sections. Beginning with the 13th there was a well-marked period of fair weather that continued throughout the district until the 16th. During the afternoon on that day rain began over the southwestern part of the district, under the influence of a storm of considerable energy advancing from the central valley, and by the morning of the 17th rain was falling at most points in the southern part of the district. The eastward movement of this storm was unusually slow and it was not until the night of the 18th that the rains began in the northern sections of the district. Excessive rains (at a rate of 2.50 inches or more in 24 hours) occurred during this storm as follows: Mohonk Lake, N. Y., 3.44; Hamburg, Pa., 2.60; Cheltenham, Md., 2.88; La Plata, Md., 2.94; Pocomoke, Md., 3.42; Princess Anne, Md., 2.68; Salisbury, Md., 2.57; Milford, Del., 2.60; Millsboro, Del., 2.90; and Seaford, Del., 2.50 on the 17th; Kennett Square, Pa., 2.85; Baltimore, Md., 4.45; Washington, D. C., 2.79; Doswell, Va., 2.94; and Fredericksburg, Va., 2.50 on the 17–18th; and at Elmira, N. Y., 3.09 on the 18th.

Beginning with the 20th there was a succession of storms at close intervals, causing rains nearly every day in many localities, that continued until the 28th. The storm of the 25th and 26th was, however, the severest and most widespread, but owing to its remarkably slow progress heavy precipitation occurred generally during 2 or 3 successive days, with a total of 3 to 4 inches over a large part of the district. The following stations reported excessive precipitation during this period: Doylestown, Pa., 2.79; Le Roy, Pa., 2.55; Muncy Valley, Pa., 2.43; Ottsville, Pa., 2.55; Pottsville, Pa., 2.93; Wellsboro, Pa., 2.46 on the 24th; Liberty, N. Y., 3.00 on the 25th; Canton, Conn., 2.60; Waterbury, Conn., 3.00; Scarsdale, N. Y., 3.50; Pompton Plains, N. J., 2.84; Little Falls, N. J., 2.70 on the 25–26th; and Griffins Corners, N. Y., 2.77 on the 26th.

Fair weather prevailed generally on the 28th, but during the night of the 29th rain again set in over the southern and western part of the district, reaching New England on the last day of the month.

RIVER CONDITIONS.

Owing to the deficiency of precipitation in March and during the first half of April, the rivers and streams of the district, which were at low stages at the beginning of the month, became gradually lower until about the 16th or 17th when remarkably heavy rains occurred, saturating the soil but causing only moderate rises in the streams. The rain that fell with the great storm of the 24–26th was, however, quickly gathered into the rivers, the gaging at many points showing a rise of from 4 to 9 feet in 24 hours, with the crest wave approaching or exceeding the flood stage between the 26th and 28th. At Wilkes-Barre, Pa., the Susquehanna River rose from a stage of 6.2 feet on the 24th to 20.0 feet on the 26th.

Evidently the most important freshets occurred on the East Branch of the Susquehanna and its tributaries. Newspaper reports indicate considerable damage along the Canisteo and Chemung rivers in southern New York, where the overflowing of the bottom lands necessitated expensive replanting of crops and in some localities left deposits of mud rendering large tracts of grass land valueless for pasture or hay. Washouts and landslides occurred in many places, destroying bridges and otherwise doing considerable damage to railroads and other property. A number of instances are reported of domestic animals, particularly hogs and sheep, being carried off and drowned by the rapidly rising streams.

The following report by the official in charge, local office, Weather Bureau, at Harrisburg, summarizes conditions in the Susquehanna River system in Pennsylvania:

> The waters of all the streams of the system, which were unusually low for the season at the close of March, continued to fall steadily until the 16th of April when a rainy period set in over the Susquehanna Valley and continued, almost without interruption, until April 26. The rain being gen-

erally light to moderate during the fore part of this period, the water was mostly absorbed by the soil which was very dry when the rains began. On the afternoon of the 23d, however, the rains became generally heavy on the main river, the middle and lower West Branch, and on the North Branch to some distance above Towanda, and also over the Valley of the Chemung River, where heavy rain fell during the night of the 23d, and by the morning of the 24th the river at Corning, N. Y., had risen 3 feet. Elsewhere the changes in stages had been unimportant, a few stations reporting stationary or falling waters. The rain continued to fall steadily on Sunday, the 24th, and by Monday morning, April 25, decided rises had occurred at all points from Towanda southward, except in the upper West Branch and the Chemung River, where the rain had not been so heavy. Warnings were immediately sent to Towanda and Wilkes-Barre, the former being advised that the river would probably reach flood stage within 24 hours, but would not go much above, and the latter that a flood stage might be expected that night with a maximum stage of about 22 feet. The river forecast on the map of April 25 stated that maximum stages were indicated, approximately, as follows: Towanda, 16 feet; Wilkes-Barre, about 22 feet; Williamsport, about 18 feet; Selinsgrove, between 13 and 14 feet, and Harrisburg about 15 feet. Maximum stages as follows occurred:

Stations.	Flood stage.	Maximum reported.
	Feet.	*Feet.*
Towanda	16	14.0
Wilkes-Barre	20	20.0, 6 p.m., 25th, rising.
Williamsport	20	17.3, 26th.
Selinsgrove	17	13.3, 8 a.m., 26th.
Harrisburg	17	15.8, 6 p.m., 26th.

The damage resulting from the flood was small.

The general rains resulting in this freshet were of incalcuable benefit to the Susquehanna Valley. They not only replenished the rapidly diminishing water supply, concerning which much apprehension was felt, but also caused the germination of spring seeds which had been sown generally in dry soil. The high waters carried down large quantities of small sized coal from the anthracite fields along the North Branch, making a profitable harvest for those engaged in the business of dredging coal from the river in the vicinity of Harrisburg.

MISCELLANEOUS.

The percentage of sunshine was considerably less than for the preceding month, the average for 16 stations being only 57 per cent of the possible in April as compared with an average of 64 per cent in March. The total number of hours of sunshine averaged 230 for the district and ranged from 171, 42 per cent of the possible, at Eastport, Me., to 260, 65 per cent of the possible, at Atlantic City, N. J. The average number of days with 80 per cent or more of sunshine was 10, and with 20 per cent or less was 6.

There was an average of 11 days with 0.01 inch or more of precipitation, 11 clear, 10 partly cloudy, and 9 cloudy days.

G. POMEROY KEESE.

One of the most distinguished cooperative observers in the United States, G. Pomeroy Keese, of Cooperstown, N. Y., died on April 22, in the 83d year of his age. With exceptional care and perseverance he had continued his meteorological records without interruption for more than 56 years, beginning with 1854. Mr. Keese was a grandnephew of James Fenimore Cooper, and was one of the few men of our time that distinctly recalled that famous writer's personality. Himself a man of literary attainments, he contributed the introduction to several volumes of a recent edition of Cooper's works, wrote much valuable local history and numerous magazine articles. He was a man of prominence and highly esteemed in his community, having been for more than 36 years president of the Second National Bank of Cooperstown as well as a leader and supporter of many important charitable, industrial, and patriotic enterprises in which his activity continued until the very last. He was a skilful farmer as well as a competent financier, and in his old age at the time of his death still held the honor of being vice-president of the Otsego County Agricultural Society of which he was a charter member. For 40 years he had been a trustee of the Orphan House of the Holy Saviour, and, after the death of the founder, Miss Susan Fenimore Cooper, was the chief inspiration of its maintenance and progress.

THE WATER SUPPLY COMMISSION OF PENNSYLVANIA.

Pennsylvania is one of the three States in the eastern section of the country which has delegated to a State Commission the duty of regulating the utilization of, and conserving its water supply, and in connection with such work there has necessarily been made, or there is in process, a thorough study of the available supply.

The Water Supply Commission of Pennsylvania was organized by an act of the Legislature dated May 5, 1905, and consists of 5 members, 3 of whom are appointed by the Governor for terms of 4 years, and the other 2 are the Commissioner of Health and the Commissioner of Forestry. Its present membership is as follows:

Chairman, John Birkinbine, Philadelphia, Pa., Consulting Engineer.

Vice-chairman, Frederic W. Fleitz, Scranton, Pa., ex-Deputy Attorney General of Pennsylvania.

Secretary, Thomas J. Lynch, South Bethlehem, Pa.

Commissioner of Health, Samuel G. Dixon, M.D., Ardmore, Pa.

Commissioner of Forestry, Robert S. Conklin, Columbia, Pa.

The original act which organized the Commission was principally intended for the purpose of regulating the incorporation of water companies, in order to have State oversight of the manner and purpose of the use of the streams of the State, although this act also instructed the Commission to familiarize itself with the condition of the water supply; but through subsequent acts of the Legislature, and by virtue of the latter portion of the original act, the work of the Commission has become more and more devoted to the protection of the streams from improper use and to the study of their flow.

The act of May 28, 1907, delegated to the Commission the control of encroachments upon the channels of the streams in order to prevent them from being reduced in section, altered in course, or subjected to additional sediment.

The act of June 7, 1907, definitely placed in the hands of the Commission the supervision of the development of water power on Pennsylvania rivers, in that no water power company can be incorporated by the State until the project has been thoroughly investigated and meets the Commission's views in regard to the ultimate development of the power on the rivers under its supervision.

The question of the alleviation of floods has been taken up by the Commission. The importance of this question, and its close relation to the other subjects which are under its care, leads the Commission to desire definite legislation in relation to the study of floods and the most feasible means of their alleviation.

The injurious effects upon industry, transportation, and population of recent droughts in this section of the country has indicated the necessity for the study of their causes, effects, and possible means of alleviation, and the Commission has devoted considerable labor to this subject.

In any study of water supply the fundamental basis from which all calculations and conclusions must be drawn is the volume of stream flow, which fact was early appreciated by the Commission, and the system of stream gagings, discontinued by the Federal Government in Pennsylvania in 1906, was immediately taken over by the Commission, and has since been greatly extended, the number of stations having been increased from 15 to 73, at which daily records of the flow of streams are obtained. Upon the information thus obtained are based decisions in regard to the incorporation of water and water power companies; the possibility of the alleviation of floods by storage, reforestation, or otherwise; the practicability of storage for maintaining the flow during droughts, and decisions in regard to encroachments upon the channels of the streams.

The Commission has made a complete examination of all of the water supply systems, corporate, municipal, and private, in operation in Pennsylvania, as well as many of the larger industrial water supply systems. These systems have been plotted

upon county maps made for the purpose, which thus indicate at a glance the use to which the streams are put and the adaptability, by reason of location and otherwise, of the drainage systems.

The Commission is convinced through these studies that one of the greatest evils to Pennsylvania streams is the load of silt carried thereby. This material may be divided into 2 classes, namely, that entering the streams by natural causes, and that coming in through artificial causes. In other words, these 2 classes may be distinguished as (1) the silt washed from the banks and from the surface of its watershed, and (2) that dumped into the streams from industrial works. In order to reduce the load carried by the streams which comes from the erosion of the banks, it will be necessary eventually to protect the banks, and the Commission is furthering this work wherever possible, requiring corporations and individuals, who desire to make changes in the channels of the rivers, to protect the banks by riprap, masonry walls, or otherwise. The dumping of material from industrial works into the rivers is being stopped wherever found, but the greatest amount of this material comes in from the coal mines, and the eventual correction of this evil is a problem which is now confronting the Commission, and its solution must be reached by some means which will not work too great a hardship upon the coal mining industry, which is one of Pennsylvania's greatest assets, but which will, nevertheless, enable the streams, now absolutely worthless for all purposes, except as the carriage of sewage and mine refuse, to be used once more for other purposes.

The Commission issues an annual report containing its action upon applications for incorporation of water companies, water power companies, encroachments, and the results of its studies of stream flow, flood control, droughts, precipitation, etc.

TABLE 1—*Climatological data for April, 1910. District No. 1, North Atlantic States.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Maine.																				
Bar Harbor	Hancock	20	24	45.4	+ 3.7	71	5	25	4†	34	5.17	+ 2.06	1.40	T.	13	12	5	13	se.	Wm. Miller.
Cornish	York	778	55	47.4	+ 4.6	78	5	22	17	46	4.90	+ 1.37	1.44	0.0	10	13	5	12	n.	T. H. West.
Eastport	Washington	53	38	42.0	+ 3.7	55	5	26	29	21	3.42	+ 0.48	1.58	1.7	15	8	8	14	s.	U. S. Weather Bureau.
Fairfield	Somerset	90	25	48.8	+ 9.8	76	5	25	3	40	2.37	+ 0.60	1.02	.....	7	12c	7c	8c	.....	Edward F. Parker.
Farmington	Franklin	450	13	47.4	+ 5.0	78	5	22	29	46	4.38	+ 2.13	1.00	.....	12	14	4	12	nw.	State Normal School.
Gardiner	Kennebec	163	18	47.3	+ 3.7	75	5	25	13†	36	4.45	+ 1.80	1.09	.....	15	14	2	14	se.	Samuel D. Soule.
Greenville	Piscataquis	1,000	6	42.5	.....	67	5	21	29	40	2.51	.....	0.37	0.5	15	.....	.....	.....	.....	U. S. Weather Bureau.
Houlton	Aroostook	362	8	44.4	.....	70	7	21	12	36	2.66	.....	0.75	.....	7	15	3	12	nw.	Bangor & Aroostook R. R.
Lewiston	Androscoggin	185	36	47.2	+ 5.4	75	5	28	4	36	4.16	+ 1.17	1.07	.....	13	11	5	14	nw.	Union Water Power Co.
Madison	Somerset	257	7	45.0	.....	75	6	23	4†	37	4.38	.....	1.38	.....	8	15	1	14	nw.	Wm. Jardine.
Millinocket	Penobscot	386	7	45.7	.....	66	4†	21	4	45	4.27	.....	0.78	2.0	14	9	3	18	nw.	H. S. Ferguson.
North Bridgton	Cumberland	450	17	47.8	+ 4.9	76	5	26	4†	42	4.92	+ 2.09	1.52	0.0	10	10	11	9	se.	G. E. Chadbourne.
Orono	Penobscot	129	41	47.2	+ 6.7	71	5†	21	4	44	2.76	0.00	0.65	T.	15	10	5	15	nw.	Agricultural Exp. Station.
Patten	...do	550	8	43.4d		68d	5	12d	12	46d	5.35d	.....	1.06	2.3d	14d	9d	4d	13d	w.	Bangor & Aroostook R. R.
Portland	Cumberland	99	39	45.8	+ 2.8	68	27	30	13	27	4.12	+ 1.01	1.01	T.	14	12	14	14	nw.	U. S. Weather Bureau.
Presque Isle	Aroostook	.....	.....	49.8b		71	6	22b	4	38b	3.49	.....	0.73	.....	14	12	2	16	s.	San Lorenzo Merriman.
Rumford Falls	Oxford	505	17	46.6	+ 5.2	69	6	28	4†	35	4.68	+ 2.15	1.11	0.1	13	16	2	12	nw.	Chas. A. Mixer.
Winslow	Kennebec	90	15	47.2	.....	78	5	20	4	45	3.14	.....	0.79	.....	10	16	4	10	w.	Hollingsw'th & Whitney Co.
New Hampshire.																				
Alstead Center	Cheshire	1,120	6	47.3	+ 3.3	76	6	25	13	29	2.37	− 0.08	0.69	.....	13	11	10	9	nw.	Frank Dewing.
Benton	Grafton	.....	.....	46.2	.....	73	6	24	11†	32	2.94	.....	0.87	T.	8	12	14	4	nw.	P. C. Bartlett.
Bethlehem	...do	1,470	18	46.1	+ 5.6	75	6	20	29	38	3.27	+ 1.25	0.72	6.0	13	14	6	10	nw.	Benjamin Tucker.
Concord	Merrimack	350	50	48.2	+ 4.4	80	6	25	17	36	3.20	+ 0.41	1.12	T.	8	7	9	14	nw.	U. S. Weather Bureau.
Durham	Stafford	88	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Agricultural Exp. Station.
Franklin	Merrimack	440	11	49.1	.....	82	6	24	17	40	3.75	.....	1.21	T.	12	12	8	10	nw.	Dr. C. P. Webster.
Grafton	Grafton	863	24	46.6	+ 5.3	79	6	20	14†	45	3.91	+ 1.02	0.98	T.	14	11	6	13	nw.	Perley R. Kimball.
Hanover	...do	603	76	48.0	+ 6.4	79	5	21	17	40	2.70	+ 1.01	0.59	T.	15	10	9	11	nw.	Dartmouth College.
Keene	Cheshire	506	25	49.0	+ 4.9	83	6	19	13	44	1.95	− 0.36	0.45	0.0	12	10	12	8	nw.	Samuel Wadsworth.
Nashua	Hillsboro	125	25	51.2	+ 5.7	82	6	25	17	39	2.44	+ 0.02	1.07	0.0	8	8	11	11	nw.	Jackson Company.
Newton	Rockingham	.....	.....	47.7	+ 3.3	77	6	22	17	43	2.25	− 0.16	0.92	.....	7	11	13	6	nw.	W. C. Gale.
Plymouth	Grafton	500	22	47.0	+ 5.8	74	5	23	14	38	4.11	+ 1.82	1.00	T.	12	12	3	15	w.	Hattie G. Trow.
Vermont.																				
Bloomfield	Essex	.....	3	45.2	.....	76	6	18	29	44	3.58	.....	0.64	1.0	13	17	5	8	s.	P. S. Tirrill.
Cavendish	Windsor	910	7	47.5	.....	79	5	23	11†	40	2.40	.....	0.67	T.	8	14	5	11	.....	Miss M. A. Kingsbury.
Chelsea	Orange	830	15	46.2	+ 6.3	74	5†	19	11	42	2.61	+ 0.98	0.76	1.0	11	11	3	16	n.	W. F. Dewey.
Jacksonville	Windham	1,000	25	48.2	+ 7.4	75	5†	20	19	45	0.62	− 2.66	0.15	3.0	7	23	5	2	nw.	Miss Martha French.
Manchester	Bennington	980	11	47.8	.....	73	6	26	29	30	2.16	.....	0.68	T.	7	10	12	8	sw.	N. M. Canfield.
St. Johnsbury	Caledonia	711	17	50.2	+ 8.4	83	5	23	29	42	3.25	+ 1.05	0.74	T.	12	11	9	10	nw.	Fairbanks Museum.
Woodstock	Windsor	700	18	46.6	+ 5.8	69	19†	25	11	33	2.72	+ 0.02	0.60	0.0	7	12	5	13	.....	John S. Eaton.
Massachusetts.																				
Amherst	Hampshire	222	21	50.4	+ 5.0	80	5	24	11	39	3.07	+ 0.04	1.56	.....	8	20	6	4	nw.	Agricultural Exp. Station.
Blue Hill	Norfolk	640	26	49.8	+ 5.3	75	6	29	11	29	2.64	− 0.38	0.58	T.	13	7	8	15	nw.	Blue Hill Observatory.
Boston	Suffolk	124	40	51.6	+ 6.3	78	6	35	11†	28	2.22	− 1.33	0.72	0.0	7	7	8	15	nw.	U. S. Weather Bureau.
Chestnut Hill	...do	124	30	52.6	+ 6.0	79	6	27	17	39	3.57	+ 0.12	1.02	.....	12	20	1	9	.....	Metropolitan Water Board.
Clinton	Worcester	370	14	50.8	.....	77	6	26	16	35	2.93	.....	1.08	.....	8	17	2	11	.....	Do.
Concord	Middlesex	139	20	49.2	+ 5.6	78	5	22	17	41	2.50	+ 0.42	0.76	0.0	11	7	12	11	se.	Fred. A. Tower.
Fall River	Bristol	200	44	51.1	+ 4.7	69	15	33	13	24	1.80	− 1.69	0.85	.....	7	3	24	3	nw.	C. V. S. Remington.
Fitchburg	Worcester	550	27	50.6	+ 5.0	81	6	25	17	34	2.78	− 0.19	0.83	T.	10	13	5	12	e.	Dr. A. P. Mason.
Framingham	Middlesex	160	30	52.4	+ 5.7	77	6	25	17	36	2.72	− 0.49	0.88	.....	9	.....	.....	.....	.....	Metropolitan Water Board.
Hyannis	Barnstable	31	19	48.0	+ 1.5	63	2	31	29	24	2.92	− 0.29	1.37	.....	10	10	13	7	se.	C. F. Sleeper.
Lawrence	Essex	51	26	50.0	+ 3.9	77	6	28	17	36	2.56	− 0.20	0.74	.....	7	6	19	5	nw.	Essex Company.
Lowell	Middlesex	100	25	52.0	+ 6.7	79	6†	29	13†	35	2.57	− 0.91	0.89	.....	8	.....	.....	.....	.....	Prop's Locks and Canals.
Middleboro	Plymouth	53	24	50.0	+ 5.3	74	15	21	17	43	2.06	− 1.06	0.94	T.	11	6	11	13	nw.	A. R. Gurney.
Monson	Hampden	420	26	49.8	+ 4.0	79	6	22	11	38	2.85	+ 0.31	0.94	.....	12	15	8	7	nw.	Dr. G. E. Fuller.
Nantucket	Nantucket	15	24	47.8	+ 3.6	65	25	35	17	21	2.95	+ 0.31	1.63	0.0	14	7	15	8	sw.	U. S. Weather Bureau.
New Bedford	Bristol	88	98	50.6	+ 6.2	68	23	34	11†	23	1.71	− 2.20	0.96	0.0	8	20	2	8	sw.	City Engineer.
Norfolk	Norfolk	244	7	52.0	.....	81	5	26	13	34	1.52	.....	0.48	.....	5	6	5	19	w.	Miss Ruby H. Martyn.
Northampton	Hampshire	205	2	50.2	.....	75	6	30	1†	39	5.06	.....	1.77	.....	5	19	2	9	nw.	D. E. Hoxie.
Plymouth	Plymouth	.....	25	48.4	.....	70	20	28	13	28	2.51	.....	1.38	.....	10	12	7	11	sw.	Laura B. Knapp.
Provincetown	Barnstable	40	23	48.0	+ 3.2	62	2†	33	29	21	3.08	+ 0.18	1.34	.....	10	20	0	10	ne.	Gideon Bowley.
Rockport	Essex	25	8	47.0	.....	65	14†	33	11†	30	2.52	.....	0.55	.....	8	10a	8a	11a	nw.	C. F. B. Bearse.
Rutland	Worcester	1,160	8	49.6	.....	77	6	27	12	42	2.96	.....	0.80	.....	12	16	5	9	w.	State Sanatorium.
South Egremont	Berkshire	764	8	46.2	.....	76	6	22	13†	42	4.66	.....	2.10	T.	12	.....	.....	.....	nw.	Roscoe C. Taft.
Turners Falls	Franklin	200	19	50.5	+ 4.9	76	6	27	11	41	3.12	+ 0.59	1.89	.....	6	.....	.....	.....	.....	Turners Falls Co.
Westboro	Worcester	298	36	52.8	+ 6.6	82	5†	24	17	39	2.42	− 0.58	1.05	.....	6	.....	.....	.....	.....	G. S. Newcomb.
Williamstown	Berkshire	711	29	49.2	+ 5.2	77	6	28	11†	33	2.53	0.00	0.88	0.5	11	10	10	10	e.	Williams College.
Worcester	Worcester	518	18	51.5	+ 5.5	78	5	30	13	33	2 70	− 0.32	0.84	0.0	10	12	7	11	nw.	G. W. Swan.
Rhode Island.																				
Block Island	Newport	26	30	47.4	+ 3.6	63	15	34	13	19	1.24	− 2.38	0.52	0.0	12	14	7	9	.....	U. S. Weather Bureau.
Bristol	Bristol	53	24	50.0	+ 4.9	67	15	32	13	22	1.90	− 1.39	1.04	0.0	8	16	8	6	s.	N. G. Herreshoff.
Kingston	Washington	250	21	49.7	+ 4.9	75	15	27	11	35	2.02	− 2.21	0.74	.....	8	10	11	9	w.	Nathaniel Helme.
Narragansett Pier	Newport	22	28	48.6	+ 3.9	72	15	28	11	28	1.81	− 1.72	0.68	.....	9	17	4	9	ne.	U. S. Weather Bureau.
Providence	Providence	182	6	50.9	+ 4.3	74	15	31	13	31	1.64	− 1.91	0.81	.....	9	8	12	10	nw.	Do.
Connecticut.																				
Bridgeport	Fairfield	20	17	51.3	.....	76	15	30	11†	37	3.62	.....	1.39	T.	9	12	12	6	sw.	William Jennings.
Canton	Hartford	900	49	49.5	+ 5.0	77	5†	22	11†	42	3.96	+ 0.74	2.60	.....	7	11	10	9	nw.	G. J. Case.
Colchester	New London	370	24	49.5	+ 3.1	78	5	24	13	41	4.09	+ 0.48	1.51	T.	9	15	9	6	s.	S. P. Willard.
Cream Hill	Litchfield	1,300	14	48.6	+ 5.2	77	5	25	12	36	3.72	+ 0.12	2.05	0.8	10	13	7	10	se.	C. L. Gold.
Danielson	Windham	300	8	48.2	.....	75	23	24	13	37	2.55	.....	0.80	.....	8	17	8	5	s.	F. E. Bitgood.
Hartford	Hartford	159	6	52.2	+ 5.5	79	5	32	13†	33	3.15	− 0.42	1.80	0.2	10	9	8	13	s.	U. S. Weather Bureau.
Hawleyville	Fairfield	600	12	51.2	+ 4.8	79	5	24	2	47	4.42	+ 0.26	1.70	.....	8	11	9	10	w.	Edson N. Hawley.
New Haven	New Haven	107	123	51.5	+ 5.1	73	15	34	13	32	3.35	− 0.21	2.13	T.	12	12	9	9	se.	U. S. Weather Bureau.
New London	New London	47	40	51.6	+ 6.1	76	15	34	13	30	1.98	− 1.52	0.72	T.	7	14	10	6	nw.	Thos. C. Dillon.
North Grosvenordale	Windham	400	20	50.8	+ 4.6	79	5	23	10†	42	3.03	+ 0.01	1.19	.....	10	14	10	6	w.	Grosvenor Dale Co.
Norwalk	Fairfield	116	20	50.6	+ 4.5	76	5†	27	11	40	3.61	+ 1.28	1.60	.....	10	9	13	8	sw.	Geo. C. Comstock.
Southington	Hartford	140	41	52.0	+ 6.2	84	5	24	3	44	4.00	+ 1.11	1.70	.....	7	5	13	12	s.	Luman Andrews.
Storrs	Tolland	640	22	53.8	+ 8.8	77	5†	31	29	28	3.20	+ 0.34	1.19	.....	6	16	4	10	s.	Agricultural Exp. Station.
Torrington	Litchfield	625	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Edwin H. Forbes. Ph. D.
Voluntown	New London	280	25	47.4	+ 0.9	74	5†	17	11	47	2.37	− 1.14	0.74	T.	7	16	5	9	sw.	Rev. E. Dewhurst.
Waterbury	New Haven	400	35	52.0	+ 5.0	83	5	26	13	41	4.08	+ 1.28	3.00	T.	12	.....	.....	.....	.....	N. J. Welton.
New York.																				
Addison	Steuben	1,000	20	52.3	+ 6.5	85	5	21	13	46	6.17	+ 3.71	2.12	T.	15	14	8	8	sw.	H. R. Ainsworth.
Albany	Albany	97	89	51.4	+ 5.6	77	6	31	13	33	4.19	+ 1.80	1.25	T.	14	7	15	8	nw.	U. S. Weather Bureau.
Alfred	Allegany	.....	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. O. S. Morgan.
Amsterdam	Montgomery	277	6	50.2	.....	77	5	27	11	35	2.57	.....	1.10	2.0	8	20	2	8	e.	Emery Elwood.
Athens	Greene	90	8	51.6	.....	80	6	29	13	38	5.90	.....	1.74	T.	11	10	10	10	sw.	E. C. Brooks.
Ballston Lake	Saratoga	400	6	49.4	.....	76	5	25	13	35	3.41	.....	1.00	1.1	14	12	5	13	s.	Geo. R. Schauber.

TABLE 1—*Climatological data for April, 1910. District No. 1*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
New York—Cont'd.																				
Bedford	Westchester	450	19	53.3	+ 5.7	83	5	28	13	45	5.20	+ 1.85	1.80	.....	13	17	6	7	.....	Dr. L. Rosenberg.
Binghamton	Broome	875	19	49.5	+ 5.1	81	5	24	13	42	2.09	− 0.16	0.66	0.2	14	9	4	17	se.	U. S. Weather Bureau.
Bouckville	Madison	1,350	13	48.4	+ 6.6	77	5	27	13†	30	2.32	− 0.48	0.48	1.0	14	9	6	15	nw.	L. W. Griswold.
Boyds Corners	Putnam	560	28	.....	.....	.....	.....	.....	.....	.....	5.59	+ 2.15	.....	.....	.....	.....	.....	.....	.....	Thomas Manning.
Carmel	....do	500	18	50.2	+ 2.2	78	6	23	13	33	5.13	+ 1.79	2.18	0.0	7	15	3	12	w.	Do.
Chatham	Columbia	470	9	50.9	.....	81	6	24	11	39	3.59	.....	1.20	T.	14	12	7	11	s.	Morton R. Tank.
Cooperstown	Otsego	1,250	56	45.6	+ 4.4	75	5	24	13	34	4.27	+ 1.55	1.88	1.5	11	11	7	12	s.	G. Pomeroy Keese.
Corinth	Saratoga	542	8	.....	.....	.....	.....	.....	.....	.....	3.64	.....	1.51	.....	7	.....	.....	.....	.....	A. M. Hollister.
Cortland	Cortland	1,129	48	50.6	+ 7.9	82	6	24	13	44	2.52	− 0.44	0.87	T.	14	15	7	8	nw.	F. G. Baker.
Cutchogue	Suffolk	32	33	50.6	+ 3.9	73	15†	30	11†	32	2.75	− 1.11	1.03	0.0	9	12	15	3	sw.	Wm. A. Fleet.
De Ruyter	Madison	1,300	7	47.4	.....	79	5	20	13	41	2.13	.....	0.37	1.1	13	12	7	11	s.	B. D. Crandall.
Easton	Washington	.....	20	.....	.....	.....	.....	.....	.....	.....	2.64	+ 0.24	1.10	1.5	5	.....	.....	.....	.....	H. Taber.
Elmira	Chemung	863	31	.....	.....	87	6	32	13	43	5.15	+ 2.20	3.09	0.0	7	9	12	9	se.	Gerity Bros.
Fort Hunter	Montgomery	280	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. E. Wing.
Fort Plain	...do	316	6	51.3	.....	79	5	23	29	41	3.64	.....	1.30	.....	14	12	11	7	w.	Abram Devendorf.
Glens Falls	Warren	340	19	50.3	+ 4.5	78	26	24	11†	37	3.67	+ 1.22	1.50	2.0	10	5	7	18	sw.	Prof. C. L. Williams.
Gloversville	Fulton	850	18	47.6	+ 3.9	76	5	26	11†	34	3.03	− 0.02	1.15	3.5	11	11	10	9	w.	W. L. McLean.
Greenfield Center	Saratoga	314	12	49.6	+ 4.7	75	5	24	13	34	3.53	+ 0.70	1.08	.....	10	15	7	8	ne.	S. E. Darrow.
Greenwich	Washington	425	13	50.7	+ 6.5	81	6	24	13	40	2.39	− 0.03	0.72	T.	13	11	14	5	s.	I. V. H. Gill.
Griffin Corners	Delaware	2,260	10	47.6	.....	78	5	20	13	40	6.23	.....	2.77	.....	10	10	7	13	w.	Kelsey H. Kelly.
Haskinville	Steuben	.....	15	.....	.....	.....	.....	.....	.....	.....	6.49	+ 4.20	2.26	2.0	12	.....	.....	.....	.....	W. G. Collins.
Homer	Cortland	1,137	2	47.6	.....	79	5	21	13	42	2.44	.....	0.52	0.1	16	10	9	11	nw.	Charles C. Mortimer.
Hoosick Falls	Rensselaer	410	.....	.....	.....	.....	.....	.....	.....	.....	3.13	.....	1.08	1.0	10	.....	.....	.....	nw.	Sanford L. Cluett.
Indian Lake	Hamilton	1,705	11	44.2	+ 5.5	70	5†	17	11	42	2.65	− 0.11	1.00	.....	8	14	4	12	n.	Lester Severie.
Jeffersonville	Sullivan	1,240	7	49.5	.....	82	5	21	13	47	4.54	.....	1.20	T.	12	13	9	8	se.	Chas. Wilfert, jr.
Lake Pleasant	Hamilton	.....	.....	41.4	.....	64	4	18	14	44	4.30	.....	1.60	.....	7	.....	.....	.....	.....	Willet Larence.
Liberty	Sullivan	2,300	28	45.5	+ 4.1	75	6	22	12	45	5.38	+ 1.52	3.00	T.	10	13	5	12	e.	Dr. H. M. King.
Little Falls	Herkimer	924	12	48.0	+ 4.6	75	5	28	7†	30	2.19	− 0.40	0.48	T.	6	15	8	7	w.	O. J. Dempster.
Mohonk Lake	Ulster	1,245	14	51.4	+ 6.3	77	5	29	13	34	8.03	+ 4.83	3.44	0.0	7	15	6	9	sw.	A. K. Smiley.
Morehouseville	Hamilton	1,697	2	44.3	.....	75	5	16	13	45	3.50	.....	1.45	1.0	13	15	2	13	w.	Theodore C. Remonda.
Mount Hope	Westchester	200	13	51.6	+ 3.8	83	5	26	13	40	6.05	+ 1.97	2.10	0.0	10	6	16	8	.....	Wm. A. Cornelius.
Newark Valley	Tioga	825	23	.....	.....	.....	.....	.....	.....	.....	2.63	+ 0.06	0.57	T.	11	14	4	12	.....	M. D. Clinton.
New Berlin	Chenango	.....	3	.....	.....	.....	.....	.....	.....	.....	2.18	.....	0.60	T.	9	.....	.....	.....	.....	Roger Greene.
New Lisbon	Otsego	1,234	20	45.3	+ 3.9	77	5	16	13	47	3.01	+ 0.64	0.92	1.0	13	8	5	17	nw.	G. A. Gates.
New York	New York	314	85	54.0	+ 5.9	79	30	34	8	33	4.53	+ 1.23	2.23	0.0	11	7	13	10	nw.	U. S. Weather Bureau.
North Creek	Warren	1,002	2	47.2	.....	75	6	21	11	37	3.56	.....	1.66	.....	6	14	5	11	w.	W. G. Kenwell.
Northville	Fulton	742	8	.....	.....	.....	.....	.....	.....	.....	3.13	.....	1.00	.....	5	.....	.....	.....	.....	P. C. Pickard.
Norwich	Chenango	1,015	4	49.6	.....	80	6	24	13	40	1.59	.....	0.45	T.	9	15	8	7	.....	H. S. Hopkins.
Oneonta	Otsego	1,112	16	48.4	+ 3.0	81	5	21	13	42	1.97	− 0.56	0.43	T.	10	14	4	12	se.	H. W. Lee.
Oxford	Chenango	916	45	48.3	+ 4.5	79	5	23	13	41	2.96	− 0.03	0.96	.....	8	9	11	10	s.	John P. Bavis.
Port Jervis	Orange	470	26	52.1	+ 5.1	84	5	27	13	45	7.98	+ 4.97	1.84	0.0	17	11	9	10	w.	Prof. John M. Dolph.
Salisbury	Herkimer	1,526	13	45.9	+ 4.2	74	5†	22	13	36	3.15	+ 0.13	1.30	4.0	9	12	11	7	w.	Joseph Ryan.
Salisbury Mills	Orange	314	11	51.6	.....	82	5	23	13	47	6.64	+ 2.91	2.98	0.0	6	19	5	6	w.	H. P. Ramsdell.
Scarsdale	Westchester	200	6	50.4	.....	82	5†	30	13	42	7.70	.....	3.50	0.0	10	18	4	8	ne.	C. H. Wilmarth.
Setauket	Suffolk	40	25	51.5	+ 4.2	74	5	33	11†	34	2.85	− 0.63	1.36	T.	10	16	7	7	w.	Selah B. Strong.
Sherburne	Chenango	.....	3	.....	.....	.....	.....	.....	.....	.....	2.29	.....	0.55	T.	9	.....	.....	.....	s.	E. B. Collins.
Southampton	Suffolk	36	9	49.6	.....	70	15	32	11†	26	2.63	.....	0.81	0.0	15	14	11	5	nw.	W. L. Jagger.
Southeast Reservoir	Putnam	310	15	.....	.....	.....	.....	.....	.....	.....	4.09	+ 0.68	.....	.....	.....	.....	.....	.....	.....	Thomas Manning.
Spier Falls	Saratoga	400	9	49.2	.....	75	5†	23	11	35	4.33	.....	1.70	T.	7	19	2	9	sw.	W. F. Anderson.
Trenton Falls	Oneida	751	7	.....	.....	.....	.....	.....	.....	.....	2.29	.....	0.80	.....	9	.....	.....	.....	.....	C. W. Young.
Tribeshill	Montgomery	268	7	.....	.....	.....	.....	.....	.....	.....	3.60	.....	1.10	1.0	8	.....	.....	.....	.....	R. S. Marshall.
Utica	Oneida	537	44	.....	.....	.....	.....	.....	.....	.....	2.25	− 0.42	0.47	.....	10	.....	.....	.....	.....	W. E. Young.
Wading River	Suffolk	112	4	50.8	.....	76	15	24	14	44	3.93	.....	1.35	0.0	13	22	1	7	se.	H. B. Fullerton.
Wappingers Falls	Dutchess	110	20	51.9	+ 3.7	78	5	28	13	40	5.29	+ 1.82	1.72	0.0	9	11	13	6	nw.	H. C. Townsend.
Warwick	Orange	538	16	.....	.....	.....	.....	.....	.....	.....	3.50	+ 0.45	1.52	0.0	7	.....	.....	.....	.....	John W. Sly.
Waverly	Tioga	824	28	51.0	+ 5.7	84	5	20	13	46	6.12	+ 3.66	2.22	0.2	18	4	16	10	nw.	Hon. J. F. Shoemaker.
West Berne	Albany	946	11	47.8	+ 4.9	78	6	24	3†	44	3.53	+ 0.54	1.76	1.0	9	4	7	19	se.	W. J. Haverly.
West Point	Orange	167	61	52.0	+ 3.4	80	6	30	13	38	9.45	+ 5.81	4.20	0.0	8	15	7	8	se.	Maj. Chas. M. Gandy.
Windham	Greene	1,520	10	46.9	+ 4.8	77	5	21	13	40	6.40	+ 3.15	2.05	T.	14	10	12	8	sw.	A. R. Mott.
Pennsylvania.																				
Altoona	Blair	1,181	22	50.6[b]	+ 3.2	83[b]	3†	26[b]	8	47[b]	3.79	+ 0.93	1.26	0.0	12	.....	.....	.....	.....	C. W. Billin.
Bethlehem	Northampton	260	.....	53.6	.....	84	5†	31	13†	47	5.74	.....	1.34	0.0	15	12	2	16	nw.	Prof. E. C. Roest.
Clearfield	Clearfield	1,107	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Raymond C. Ogden.
Emporium	Cameron	1,050	23	51.2	+ 3.9	82	5	24	13	46	5.14	+ 2.02	0.95	1.0	15	11	10	9	w.	T. B. Lloyd.
Ephrata	Lancaster	384	10	54.2	+ 4.8	85	30	29	13	42	4.40	+ 1.41	0.93	0.0	13	11	9	10	w.	W. L. Frantz.
Everett	Bedford	1,080	12	52.6	+ 5.1	85	5†	29	14	48	4.35	+ 1.55	1.59	T.	12	6	15	9	w.	B. L. Steckman.
George School	Bucks	.....	3	53.8[c]	.....	81[c]	30[c]	30[c]	9†	49[c]	5.27	.....	1.58	0.0	8	11[a]	11[a]	7[a]	sw.	Prof. A. C. Smedley.
Gettysburg	Adams	600	36	55.6	+ 5.5	88	30	31	14	47	6.09	+ 2.58	1.80	0.0	11	7	14	9	s.	Col. E. B. Cope.
Gordon	Schuylkill	804	6	53.0	.....	84	15†	22	13	49	8.06	.....	1.68	T.	15	15	7	8	n.	Capt. J. G. Johnson.
Hamburg	Berks	380	14	55.0	+ 5.0	85	30	30	19	51	8.50	+ 4.85	2.60	0.0	7	19	0	11	se.	W. J. Kalbach.
Harrisburg	Dauphin	361	22	75.7	+ 5.0	87	30	34	7	41	4.20	+ 1.71	1.84	T.	13	8	13	9	nw.	U. S. Weather Bureau
Huntingdon	Huntingdon	650	22	53.4	+ 4.3	86	5†	25	13	50	5.67	+ 2.69	1.27	1.0	14	10	11	9	w.	Prof. W. J. Swigart.
Hyndman	Bedford	977	3	53.4	.....	88	30	28	14	53	4.07	.....	0.80	T.	14	10	5	15	sw.	H. C. Mauk.
Lawrenceville	Tioga	1,006	12	52.4	+ 7.9	84	5	20	13	52	6.39	+ 3.40	1.75	2.0	16	10	10	10	.....	C. P. Darling.
Lebanon	Lebanon	458	23	56.3	+ 6.4	87	5†	33	8†	43	6.35	+ 3.18	1.52	T.	14	11	12	7	nw.	G. W. Hayes, C. E.
Lock Haven	Clinton	560	22	54.5	+ 4.7	86	30	26	13	44	5.61	+ 2.56	1.96	0.4	19	8	10	12	w.	Prof. J. A. Robb.
Marion	Franklin	640	6	55.6	.....	89	30	31	14	43	5.47	.....	1.27	0.0	12	11	13	6	.....	Hon. C. B. Hege.
Mauch Chunk	Carbon	634	21	53.4	+ 5.0	85	5†	29	13†	47	7.35	+ 3.99	2.00	0.0	14	13	7	10	w.	F. C. Wintermute.
Mifflintown	Juniata	445	6	53.8	.....	84	5†	21	13	48	7.43	.....	1.78	T.	15	9	7	14	w.	Wellington Smith.
Milford	Pike	455	7	50.8	.....	84	30	22	13	47	5.56	.....	1.59	T.	16	8	16	6	se.	Mrs. Alla Doughty.
Montrose	Susquehanna	1,658	6	49.8	.....	84	5	20	13	45	2.78	.....	0.85	.....	13	.....	.....	.....	.....	J. R. Beebe.
Muncy Valley	Sullivan	519	.....	52.1[a]	.....	80[a]	5†	26[a]	12	39[a]	7.88	.....	2.43	0.0	11	17[a]	0	12[a]	.....	F. W. Buck.
New Germantown	Perry	873	6	54.0	.....	85	5†	26	13	50	7.31	.....	1.62	0.0	10	11	5	14	w.	Ed. C. Johnston.
Philadelphia (1)	Philadelphia	117	39	57.0	+ 6.2	83	30	38	8	36	4.76	+ 1.85	1.45	0.0	12	8	12	10	sw.	U. S. Weather Bureau.
Pocono Lake	Monroe	1,662	8	48.8	.....	79	5	18	13	47	5.69	.....	1.60	T.	9	14	4	12	w.	Pocono Lake Ice Co.
Reading	Berks	280	37	56.9	+ 6.1	88	30	31	13	42	5.38	+ 2.14	1.25	0.0	12	.....	.....	.....	.....	Franklin Yeager.
Scranton	Lackawanna	805	10	52.0	+ 4.9	83	5	32	13	39	3.41	+ 0.76	1.27	T.	17	9	7	14	ne.	U. S. Weather Bureau.
Selinsgrove	Snyder	455	22	54.2	+ 4.7	85	30	26	13	46	6.72	+ 3.76	1.85	T.	15	2	20	8	se.	J. M. Boyer, C. E.
State College	Center	1,191	22	51.3	+ 4.0	81	5	30	8†	40	7.02	+ 4.05	1.72	0.8	14	.....	.....	.....	sw.	Prof. Wm. Frear.
Towanda	Bradford	754	15	50.7	+ 4.5	82	5	21	13	46	5.36	+ 2.98	2.17	0.1	15	5	8	17	e.	Hiram E. Bull, C. E.
Wellsboro	Tioga	1,227	33	50.4	+ 6.2	83	5	21	13	51	6.41	+ 3.12	2.46	T.	13	10	13	7	se.	O. L. White.
West Chester	Chester	455	56	55.3	+ 6.0	83	30	34	8†	37	5.50	+ 1.85	1.51	0.0	14	14	5	11	sw.	J. C. Green, D. D. S.
Wilkes-Barre	Luzerne	575	25	.....	.....	.....	.....	.....	.....	.....	3.88	+ 1.52	1.42	.....	13	.....	.....	.....	.....	A. W. Betterly
Williamsport	Lycoming	530	20	53.6	+ 5.9	82	30	28	13	47	6.51	+ 3.70	2.00	T.	12	15	5	10	nw.	Henry H. Guise.
New Jersey.																				
Asbury Park	Monmouth	22	22	50.0	+ 1.9	82	30	35	8†	36	4.54	+ 0.87	1.50	T.	12	10	9	11	se.	B. H. Obert.
Atlantic City	Atlantic	16	37	51.2	+ 3.6	67	5	36	8	21	4.23	+ 1.24	1.07	0.0	12	10	9	11	sw.	U. S. Weather Bureau.

TABLE 1—*Climatological data for April, 1910. District No. 1*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	
New Jersey—Cont'd.																			
Bayonne	Hudson	50	20	53.0	+ 4.0	80	6†	33	13	37	5.31	+ 1.63	1.66	0.0	12	7	14	9	se.	J. H. Eadie.
Belvidere	Warren	289	19	53.3[a]	+ 3.7	85[a]	5	26[a]	13	46[a]	6.01	+ 2.88	1.44	0.0	13	8	12	10	.....	S. J. Hixson.
Bergen Point	Hudson	37	13	53.2	+ 4.7	81	6	33	14	39	6.03	+ 2.14	1.57	0.0	15	10	13	7	se.	Dr. W. H. Mitchell.
Boonton	Morris	413	20	.....	.....	.....	.....	.....	.....	.....	6.66	+ 2.90	2.05	0.0	14	.....	.....	.....	.....	F. G. McIntosh.
Bridgeton	Cumberland	30	29	56.6	+ 4.8	88	30	30	14	43	3.55	+ 0.05	1.43	0.0	10	10	10	10	se.	H. A. Jorden.
Burlington	Burlington	12	26	.....	.....	.....	.....	.....	.....	.....	5.72	+ 2.35	1.56	0.0	11	.....	.....	.....	.....	D. S. B. McCoy.
Canton	Salem	24	16	.....	.....	.....	.....	.....	.....	.....	3.43	+ 0.07	.....	0.0	10	7	13	10	.....	J. H. Maskell.
Cape May	Cape May	17	26	51.8	+ 3.4	68	22	37	8	24	4.10	+ 1.11	1.87	0.0	12	9	15	6	s.	U. S. Weather Bureau.
Charlotteburg	Passaic	719	18	51.5	+ 5.0	80	5	23	13	48	7.56	+ 3.69	2.05	0.0	10	8	14	8	se.	G. S. Briggs.
Chatham	Morris	234	8	.....	.....	.....	.....	.....	.....	.....	6.02	.....	1.85	0.0	14	.....	.....	.....	.....	M. A. Butler.
Clayton	Gloucester	126	17	55.6	+ 5.3	84	5†	31	14	40	4.22	+ 1.28	1.26	0.0	10	9	11	10	sw.	W. T. Farley.
College Farm	Middlesex	100	15	54.0	+ 5.3	83	5	32	13†	40	5.01	+ 1.37	1.50	T.	15	11	8	11	ne.	G. B. Thrasher.
Culvers Lake	Sussex	848	9	.....	.....	.....	.....	.....	.....	.....	4.98	.....	1.36	T.	15	10	10	10	e.	B. E. Riker.
Dover	Morris	575	26	50.9[b]	+ 3.6	82[b]	5	29	14[b]	36[b]	7.17	+ 3.66	1.75	0.0	13	6	12	12	.....	W. C. Harris.
Elizabeth	Union	33	31	55.3	+ 4.5	84	5	35	14	39	4.45	+ 0.88	1.05	0.0	9	11	9	10	e.	W. M. Oliver.
Flemington	Hunterdon	187	22	54.0	+ 4.9	84	5	28	13	45	4.92	+ 1.48	1.40	0.0	11	8	10	12	e.	H. E. Deats.
Friesburg	Salem	100	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. C. Perry.
Haddonfield	Camden	75	16	55.4	+ 4.6	83	5†	31	14	40	5.04	+ 2.13	1.01	0.0	13	10	10	10	sw.	C. F. Richardson.
Hammonton	Atlantic	80	12	.....	.....	.....	.....	.....	.....	.....	5.44	+ 2.14	1.20	0.0	12	.....	.....	.....	.....	Orville Bassett.
Hightstown	Mercer	85	18	54.2	+ 4.4	83	15	30	14	43	3.89	− 0.02	0.70	T.	11	8	12	10	sw.	Ernst Wenger.
Imlaystown	Monmouth	106	24	54.6	+ 4.0	83	5	30	13	40	3.85	+ 0.35	0.70	0.0	11	8	12	10	sw.	Dr. F. C. Price.
Indian Mills	Burlington	76	21	54.8	+ 4.5	87	30	27	14	45	5.08	+ 1.95	1.21	0.0	13	9	11	10	sw.	James Armstrong.
Jersey City	Hudson	15	12	54.6	+ 5.2	82	30	35	13	36	4.95	+ 1.25	1.90	T.	11	7	15	8	se.	S. K. Pearson, jr.
Lakewood	Ocean	54	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. R. Major.
Lambertville	Hunterdon	93	24	54.4	+ 4.0	82	5	29	13	41	6.29	+ 2.89	1.69	0.0	12	8	11	11	se.	W. R. Bowne.
Layton	Sussex	550	11	51.8[a]	+ 5.3	84[a]	30	20	13	49[a]	.....	.....	.....	0.0	.....	10	10	10	s.	W. C. Hursh.
Little Falls	Passaic	175	7	.....	.....	.....	.....	.....	.....	.....	7.22	.....	2.70	0.0	12	.....	.....	.....	.....	A. Sweetman.
Long Branch	Monmouth	30	3	52.6	.....	82	30	33	14	37	4.79	.....	1.61	T.	12	8	12	10	se.	B. B. Bobbit.
Mahwah	Bergen	312	8	.....	.....	.....	.....	.....	.....	.....	7.38	.....	.....	0.0	13	.....	.....	.....	.....	C. L. Barker.
Moorestown	Burlington	71	48	55.0	+ 5.0	82	5†	32	14	38	5.64	+ 2.45	1.45	0.0	13	8	12	10	se.	J. C. Beans.
Newark	Essex	140	67	55.0	+ 5.9	81	6†	35	13	37	5.27	+ 1.54	1.65	T.	11	8	14	8	se.	Prof. Wm. Wiener.
New Brunswick	Middlesex	61	57	53.8[a]	+ 4.1	84[a]	5	30	13†	44[a]	4.99	+ 1.20	1.80	0.0	11	9	13	8	.....	W. T. Woerner.
Newton	Sussex	678	31	53.0[a]	+ 5.4	83[a]	5	25[a]	13	45[a]	4.31	+ 1.10	1.67	0.0	15	9	12	9	nw.	B. H. Kienbaum.
Northfield	Atlantic	.....	3	.....	.....	.....	.....	.....	.....	.....	4.48	.....	1.36	0.0	12	.....	.....	.....	.....	W. L. Flick.
Oceanic	Monmouth	16	24	5.28[b]	+ 2.3	82[b]	6	33[a]	11†	39[b]	4.90	+ 1.21	1.52	0.0	10	8	10	12	sw.	Prof. C. E. Dietz.
Paterson	Passaic	110	39	53.6[a]	+ 3.3	81[a]	6	32	13†	40[a]	6.85	+ 3.36	1.83	0.0	10	8	15	7	se.	H. A. Probert.
Phillipsburg	Warren	196	13	53.5	+ 4.2	84	5	30	13	41	5.04	+ 1.75	1.17	T.	15	9	11	10	e	D. W. Smith
Plainfield	Union	100	24	53.4	+ 5.4	83	5	29	13	44	5.04	+ 1.14	1.77	T.	13	5	17	8	ne.	John Neagle.
Pleasantville	Atlantic	26	12	.....	.....	.....	.....	.....	.....	.....	4.27	+ 0.75	1.07	0.0	12	11	8	11	.....	L. Van Gilder.
Pompton Plains	Morris	195	8	.....	.....	.....	.....	.....	.....	.....	6.90	.....	2.84	0.0	13	.....	.....	.....	.....	M. S. Taylor.
Rancocas	Burlington	68	47	.....	.....	.....	.....	.....	.....	.....	5.29	+ 2.11	1.00	0.0	12	8	9	13	se.	Spencer Haines.
Rivervale	Bergen	70	19	.....	.....	81[c]	5	.....	.....	.....	7.21	+ 3.98	.....	0.0	9	10	10	10	nw.	G. S. M. Holdrum.
Runyon	Middlesex	18	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. H. Cottrell
Somerville	Somerset	76	27	54.2	+ 5.5	85	5	29	11	44	4.80	+ 1.25	1.41	0.0	11	10	10	10	sw.	P. Hardcastle.
South Orange	Essex	200	40	53.0	+ 4.7	78	6†	31	13	33	6.15	+ 2.66	1.50	T.	10	8	11	11	e.	Dr. W. J. Chandler.
Sussex	Sussex	442	20	53.2	+ 4.9	84	5	27	13	47	4.64	+ 1.39	1.79	0.0	13	8	11	11	sw.	Prof. W. H. Seeley.
Trenton	Mercer	60	38	57.4[a]	+ 6.0	86	5	35[a]	13	39[a]	5.08	+ 1.43	1.00	0.0	12	7	14	9	sw.	E. R. Cook.
Tuckerton	Ocean	23	17	52.2	+ 4.3	77	5†	29	14	43	4.95	+ 1.16	0.98	0.0	13	9	12	9	sw.	F. R. Austin.
Vineland	Cumberland	118	41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Alfred Chalmers.
Woodbine	Cape May	43	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Prof. R. D. Maltby.
West Virginia.																			
Bayard	Grant	2,500	8	49.3	.....	81	5†	22	14	55	3.17	.....	0.40	7.0	15	8	10	12	w.	Solomon Clark.
Burlington	Mineral	875	15	53.8	+ 3.6	87	30	29	14	50	3.77	+ 1.49	2.00	T.	5	10	14	6	w.	J. W. Vandiver.
Franklin	Pendleton	.....	3	52.6	.....	88	8	29	22	55	2.50	.....	1.30	0.0	3	20	4	6	.....	A. A. Martin.
Lost City	Hardy	.....	4	52.8	.....	83	30	34	8†	39	3.67	.....	1.15	0.0	11	10	11	9	w.	B. D. Hinegardner.
Martinsburg	Berkeley	435	19	55.0	+ 4.2	91	30	35	8†	48	3.96	+ 1.08	.....	0.0	10	12	9	9	nw.	G. W. Van Metre, C. E.
Moorefield	Hardy	900	14	53.8	+ 2.1	87	5	28	22	54	4.81	+ 2.40	1.55	0.0	11	9	16	5	ne.	John C. Fisher.
Romney	Hampshire	824	14	53.8	+ 2.9	90	30	31	14	49	3.33	+ 0.92	1.01	T.	9	7	14	9	w.	John C. Linthicum.
Upper Tract	Pendleton	1 230	12	54.7[a]	+ 4.5	87[a]	30	30[a]	22	48[a]	2.37[a]	+ 0.13	0.58[a]	0.0	9[a]	8[a]	11[a]	10[a]	w.[a]	J. M. Mallow.
Maryland.																			
Annapolis	Anne Arundel	45	32	56.2[a]	+ 3.1	75[a]	8	39	8	36[a]	9.36	+ 5.58	2.80	0.0	11	12	9	9	sw.	W. M. Abbott.
Bachmans Valley	Carroll	860	17	55.0	+ 5.6	87	30	32	8†	42	5.71	+ 1.92	1.19	0.0	13	19	7	4	s.	.....
Baltimore	Baltimore	115	40	58.2	+ 5.2	92	30	40	8	36	7.76	+ 4.49	3.69	0.0	12	11	9	10	s.	U. S. Weather Bureau.
Cambridge	Dorchester	25	12	58.6	+ 3.7	88	30	34	14	41	5.83	+ 2.67	2.48	0.0	12	15	4	11	s.	T. E. Keenan.
Cheltenham	Prince George	230	10	58.7	.....	89	30	34	14†	38	9.13	.....	2.88	0.0	14	10	11	9	nw.	J. E. Burbank.
Chester	Queen Anne	15	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chestertown	Kent	80	25	56.8	+ 5.4	84	30	36	14	35	3.75	+ 0.24	1.20	0.0	6	17	9	4	s.	Hon. M. de K Smith.
Chewsville	Washington	530	13	54.4	+ 3.9	86	30	31	10	42	4.64	+ 2.17	1.84	0.0	10	7	20	3	nw.	D. Paul Oswald.
Clear Spring	....do	650	13	54.1	+ 3.5	88	30	33	8	44	4.32	+ 1.08	1.01	T.	12	10	16	4	sw.	W. W. Frantz.
Coleman	Kent	80	12	57.0[c]	.....	83[c]	30	35[c]	14	35[c]	4.17[c]	.....	1.48[c]	0.0[c]	6[c]	12[c]	3[c]	10[c]	sw.[c]	James S. Harris.
College Park	Prince George	170	20	56.9	+ 4.5	90	30	30	14	46	6.31	+ 2.83	2.10	0.0	13	11	3	16	w.	Prof. H. J. Patterson.
Cumberland	Allegany	700	36	.....	.....	.....	.....	.....	.....	.....	4.26	+ 1.67	1.10	T.	12	.....	.....	.....	e.	J. W. Frantz.
Darlington	Harford	300	18	55.2	+ 3.9	89	30	32	14	53	4.73	+ 1.65	1.20	0.0	10	15	10	5	sw.	Prof. A. F. Galbreath
Denton	Caroline	42	15	56.6	+ 4.7	85	30	28	14	44	4.63	+ 1.80	2.17	0.0	10	16	6	8	s.	H. B. Mason.
Easton	Talbot	35	19	56.6	+ 3.6	83	30	33	14	37	5.15	+ 2.11	1.88	0.0	9	14	7	9	s.	Henry Shreve.
Emmitsburg	Frederick	720	37	57.2	+ 5.7	89	30	34	8	38	5.75	+ 2.55	1.71	0.0	11	9	14	7	nw.	Jno. H. Eckenrode.
Fallston	Harford	450	40	55.2	+ 4.7	86	30	33	8	38	7.58	+ 3.97	2.43	0.0	14	2	19	9	se.	J. H. Curtiss.
Frederick	Frederick	275	33	57.0	+ 4.7	91	30	34	8	43	4.46	+ 1.13	1.47	0.0	14	15	9	6	ne.	Henry Trail.
Frostburg	Allegany	1,929	9	53.4	.....	84	5†	29	8	42	4.03	.....	0.81	T.	18	15	10	5	.....	L. B. Abbott.
Great Falls	Montgomery	220	19	56.8	+ 4.2	91	30	33	14	44	5.37	+ 2.53	1.48	0.0	11	12	16	2	se.	J. W. Bissett.
Green Spring Furnace	Washington	450	18	56.4	+ 5.0	89	30	32	14	45	4.12	+ 1.55	0.74	0.0	14	14	8	8	e.	E. G. Kinsell.
Keedysville	....do	400	6	56.6	.....	91	30	33	10	44	5.54	.....	1.35	T.	12	12	9	9	s.	J. A. Miller.
Lake Montebello	Baltimore	.....	1	.....	.....	.....	.....	.....	.....	.....	6.76	.....	2.42	0.0	12	14	8	8	s.	Martin L. Dobler.
La Plata	Charles	190	1	57.1	.....	86	5†	34	9†	46	8.67	.....	2.94	0.0	13	17	4	9	se.	Prof. R. H. Lee Reich.
Laurel	Prince George	150	16	56.7	+ 4.1	91	30	30	14	48	10.37	+ 7.21	2.30	0.0	15	4	21	5	.....	Dr. T. M. Baldwin.
Monrovia	Frederick	630	23	56.8	+ 5.4	90	30	33	8	38	4.69	+ 1.47	1.62	0.0	13	10	11	9	s.	J. H. Lawson.
Pocomoke City	Worcester	37	17	57.7	+ 3.1	82	5	36	14	34	5.07	+ 1.84	3.42	0.0	10	14	10	6	s.	R. M. Stevenson.
Porto Bello	St. Mary	38	5	54.7	.....	80	30	38	8†	37	6.75	.....	2.00	0.0	6	18	5	7	se.	Alpheus Hyatt.
Princess Anne	Somerset	17	17	56.1	+ 3.6	84	5	30	14	42	4.92	+ 1.85	2.68	0.0	10	1	22	7	sw.	Jas. R. Stewart.
Rockville	Montgomery	421	5	57.4	.....	89	30	33	8	36	6.61	.....	2.20	0.0	15	10	13	7	.....	Dr. Geo. E. Lewis.
Salisbury	Wicomico	23	5	57.2	.....	87	5	29	14	41	4.33	.....	2.57	0.0	11	8	18	4	sw.	W. E. Downing.
Sanatorium	Frederick	.....	2	55.3	.....	86	30	30	8	38	6.08	.....	1.90	T.	13	13	2	15	se.	Dr. W. M. Garrison
Solomons	Calvert	20	19	57.2	+ 3.9	85	30	38	8	33	2.74	− 0.19	1.52	0.0	11	5	10	15	se.	Dr. W. H. Marsh.
Sudlersville	Queen Anne	65	11	57.2	+ 4.2	84	30	32	14	40	4.19	+ 1.10	1.60	0.0	12	11	11	8	s.	Jas. E. Higman.
Takoma Park	Montgomery	320	12	55.6	+ 3.5	89	30	33	8†	48	5.97	+ 2.73	1.60	0.0	11	4	16	10	.....	L. M. Moores.
Taneytown	Carroll	450	11	54.9[a]	+ 3.7	88[a]	30	30[a]	14	45[a]	6.08	+ 3.10	1.93	0.0	13	21	4	5	se.	R. A. Nusbaum.
Towson	Baltimore	465	2	57.0	.....	90	30	35	14	41	7.62	.....	2.16	0.0	12	12	6	12	se.	C. W. E. Treadwell.

TABLE 1—*Climatological data for April, 1910. District No. 1*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Maryland—Cont'd.																				
Van Bibber	Harford	100	13	54.7	+ 3.5	86	30	28	14	47	7.71	+ 4.30	2.21	0.0	9	11	13	6	.....	J. Benj. Ford.
Westernport	Allegany	1,000	16	54.6	+ 4.2	88	30	31	10†	50	3.22	+ 0.63	0.84	0.0	10	....	....	....	.....	Prof. O. H. Bruce.
Woodstock	Baltimore	392	36	59.4	+ 7.7	90	30	25	14	41	5.21	+ 2.21	1.87	0.0	12	13	6	11	se.	Rev. A. J. Donlon, S. J.
Delaware.																				
Delaware City	Newcastle	.....	8	56.4	.....	81	30	36	14	36	2.97	.....	1.09	0.0	5	20	8	2	s.	H. Morton Price.
Dover	Kent	.....	22	57.7	+ 4.8	87	30	32	14	41	3.51	+ 0.04	2.60	0.0	10	13	12	5	s.	Thos. F. Dunn.
Milford	...do	.....	20	58.6	+ 5.9	87	30	32	14	43	4.34	+ 1.00	2.60	0.0	11	12	9	9	sw.	C. J. Holzmueller.
Millsboro	Sussex	.....	18	56.5	+ 4.4	86	5†	28	14	45	4.23	+ 0.61	2.90	0.0	9	18	2	10	sw.	Rev. L. W. Wells.
Seaford	...do	.....	17	56.7	+ 4.2	83	30	30	14	41	4.21	+ 0.69	2.50	0.0	9	13	13	4	sw.	E. B. Brown.
District of Columbia.																				
Washington	District of Columbia	112	40	57.9	+ 4.8	92	30	37	14	38	5.89	+ 2.64	2.79	0.0	12	13	9	8	s.	U. S. Weather Bureau.
Virginia.																				
Culpeper	Culpeper	450	2	57.1	.....	91	30	29	8	43	3.70	.....	1.62	0.0	9	6	20	4	s.	Col. H. C. Burrows.
Dale Enterprise	Rockingham	1,350	31	53.9	+ 1.4	90	30	24	8	44	3.64	+ 0.67	1.00	0.0	12	8	11	11	sw.	Rev. L. J. Heatwole.
Doswell	Hanover	134	9	60.4	.....	91	30	29	8	46	7.24	.....	2.94	0.0	8	12	15	3	s.	Rich., Fdksbg. & Pot. R. R.
Eastville	Northampton	15	....	58.6	.....	85	5†	33	14	38	2.69	.....	1.08	0.0	9	16	8	6	sw.	Thos. B. Robertson.
Fredericksburg	Spottsylvania	100	21	59.4	+ 5.2	93	30	33	8	43	7.76	+ 4.43	2.50	0.0	13	11	12	7	se.	S. G. Howison.
Lincoln	Loudoun	503	9	56.9	.....	95	30	29	20	50	4.43	.....	1.65	0.0	8	4	18	8	nw.	Dr. Geo. Roberts.
Mount Weather	...do	1,726	6	52.2	+ 1.2	86	30	30	8	32	3.64	+ 0.44	1.47	0.0	11	9	8	13	nw.	U. S. Weather Bureau.
Nokesville (near)	Fauquier	350	6	.....	.....	.....	.....	.....	.....	.....	7.24	.....	2.38	0.0	8	18	0	12	nw.	Andrew Low.
Quantico	Prince William	16	13	57.6	+ 4.3	88	30	34	8†	47	4.14	.....	1.53	0.0	10	21	3	6	sw.	Rich., Fdksbg. & Pot. R. R
Shenandoah	Page	937	9	.....	.....	.....	.....	.....	.....	.....	4.66	+ 1.76	1.59	0.0	13	8	11	11	sw.	Norfolk & Western Ry.
Staunton	Augusta	1 380	18	55.1	+ 1.9	90	30	31	22	40	4.23	+ 1.49	1.05	0.0	10	4	10	16	se.	Ernest Nothnagel.
Stephens City	Frederick	710	18	56.8	+ 3.7	93	30	30	14	50	6.04	+ 2.89	2.00	0.0	9	3	21	6	s.	B. T. Argenbright.
Warsaw	Richmond	160	18	57.3	+ 2.8	84	5	34	14	30	4.15	+ 1.62	1.62	0.0	12	14	10	6	w.	C. H. Constable.
Woodstock	Shenandoah	927	14	56.4	+ 4.0	92	30	32	8	49										Miss A. G. Miley.

*, b, *, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
‖ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
Estimated by observer.
Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for April, 1910. District No. 1, North Atlantic States.*

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maine.																															
Bar Harbor	Coast	.15						.15	T.	.05	.07		T.						T.	1.40	.45	T.	.60	.20	.10	.25	.10	.80			.85		5.17
Cornish	Saco				T.			.26	.24	.11									.30	.36	.59		1.00	T.	T.	.05	1.44				.55		4.90
Danforth	Penobscot	.15						.05			.15									.15	.30	.05	.15		.20			.35			.30		1.85
Debsconeag	...do																															
Eastport	Coast	.11						.03		.04	.04		.02		T.				.05	.39	1.43	.32	.23	.03			.02	.32	.01		.38		3.42
Fairfield	Kennebec																		*	.25	.22		.58				*	1.02			.30		2.37
Farmington	...do	.44							.27	T.									.28	.38	.46		.67	.02	.05	.02	*	1.00			.79		4.38
Gardiner	...do	.18						.03	.18	.07									.07	.37	.37	.01	1.09	.05	.02	.02	.40	.89			.70		4.45
Greenville	...do	T.						.01	.02	.11	.07		.08						.12	.12	.30		.30	.10	.11	.13	.37	.25			.42		2.51
Houlton	St. John																			*	*	1.00	.01		.75	.70	.20					2.66
Lewiston	Androscoggin	.10						.33	.12	.01									.19	.18	.52		1.07		.03	.08	.55	.41			.57		4.16
Madison	Kennebec								.17										.55		.57	.42	.35				.02	1.38			.92		4.38
Millinocket	Penobscot	.48							.17	T.	.12		.12							.40	.33	.42	.41	.08	.17	.19	.17	.78			.43		4.27
North Bridgeton	Saco								.54										.12	.32	.58		1.20	T.	.03	.03	1.06	.46			.58		4.92
Orono	Penobscot							.15	.01	.02	.13		T.						T.	.60	.09	.15	.43	.01	.01	.23	.01	.65	.01		.26		2.76
Oquossoc	Androscoggin																															
Patten	Penobscot	.52						.43			.26	T.	.15							1.06	.16	23	.53	.39		.28	.21	.75			.38		5.35
Portland	Coast							.59	.07	.03									.25	.14	.57	.01	1.01	.01	.04	.04	.95	.05			.36		4.12
Presque Isle	St. John	.25	T.					T.	T.	.01	.73	.01	.05						T.	.43	.12	.02	.15	.57	.07	.02	T.	.51			.55		3.49
Rumford Falls	Androscoggin	T.						.15	.58				.04						.28	.11	.53		1.11	.01	.02	.07	.86	.20			.72		4.68
The Forks	Kennebec								.15				.20							*	.55		*	*	*	*	.75	.75			.45		2.85
Winslow	...do						.02													.33	*	*	*	*	*	*	2.60			.79		3.14
New Hampshire.																																
Alstead Center	Connecticut	T.				T.	T.	.03	.04	.11	.03								.28	.38	.01		.28	.03	T.	.02	.69	.38	.09				2.37
Benton	...do							.48			.04							.04	*	.41			*	.71		T.	.87	.20			.19		2.94
Bethlehem	...do	.05						.54	.36	.25	.10								.04	.15	.08		.68	.04			.21	.56			.21		3.27
Brookline	Merrimac				T.				T.			.02						.04	1.35	.05			.02		.03		1.45			.14		3.10
Concord	...do				T.		T.		.09	.01								T.	.45	.42	.04		.78	T.	T.	T.	1.12			.29		3.20
Durham	...do																															
Franklin	...do	.06			.03	.02			.08	T.									.21	.81	.07		.77	.11			.69	.52			.38		3.75
Grafton	...do				.01	.05		.05	.05	.05	.03								.11	.75	.04		.83	.31	T.	T.	.98	.40			.25		3.91
Hanover	Connecticut	T.	T.		.08	.02	.31	.07	.08	.09									.12	.29	.01		.54	.01		.01	.59	.38			.10		2.70
Keene	...do	.04			T.	.08			.01	.06	.02				T.			T.	.11	.41			.24			.04	.45	.42			.07		1.95
Nashua	Merrimac								.10	.01			T.	T.				T.	.43	.36	.01		.37	T.	T.	T.	1.07			T.	.09		2.44
Newton	...do				T.				.18	.05									.42		.12		.48		T.	T.	.92				.08		2.25
Plymouth	...do	.08			T.	.07		.05	.03	T.	T.								.15	.79	.12		1.00	.10		T.	.87	.47			.38		4.11
Vermont.																																
Bloomfield	Connecticut	.12						.35	.43	.07	.12								.03	.18	.26		.52	.12			.21	.64			.57		3.58
Cavendish	...do				T.	T.	.28	.16	.05	.08	T.								*	.35			.39			*	.67	.42			*		2.40
Chelsea	...do						.05	.38	.12	.25									.08	.12	.10		.29			T.	.28	.76			.18		2.61
Jacksonville	...do				.01					.01	.10						.15		.15							.10				.10		0.62
Manchester	Hudson				.16	.08	.34	.42	T.	T.									.38							T.	.68		.10		.10		2.16
St. Johnsbury	Connecticut						.59	.29	.05	.10			T.						.05	.12	.01		.39	.18			.42	.74	T.		.31		3.25
Vernon	...do				.07			T.	.03			T.							.93	.03						.57	1.00			.02	.01		2.66
Woodstock	...do				.05			.54		.08									.55				.60				.48	.42					2.72
Massachusetts.																																
Amherst	Connecticut				.05		T.	T.	.01	T.		.54						T.	.45	.03			T.			.30	1.56		T.	.13		3.07
Ashland	Merrimac				.01				.30	.02		.28							.08	.03			.32				.89			.08		2.61
Bakers Bridge	...do								.23	.05			.21						.40	.34	.04		.47				.44	.30					2.48
Bedford	...do	.05			T.				.60	T.		T.	.15					T.	.17	.24	.07		.33			T.	.54	.36			.13		2.64
Blue Hill	Coast	.06			.02			T.	.45	.02	T.	.01	.19						.11	.34	.01		.49		T.	T.	.58	.27			.09		2.64
Boston	...do				T.				.72	T.		.16						T.	.09	.36	T.		.38		T.	T.	.47			T.	.04		2.22
Chestnut Hill	...do				.02			.40	.09			.34						.03	.87	.05		.53	.05			.09	1.02			.08			3.75
Clinton	Merrimac				.03				T.	.02			.25					T.		.93	.04		.22		T.		1.29				.10		2.93
Concord	...do	.03			T.	T.			.19	.01	T.	T.	.19						.24	.42	.05		.51			T.	.50	.26			.10		2.50
Fall River	Coast								.25			.05	.13					.03	.32	.17							.85						1.80
Fitchburg	Merrimac				T.					T.		.07	.09					T.	.18	.70	.02		.23		T.	.01	.83	.53			.12		2.78
Framingham	...do				.02				.25	.02		.30							*	.72	.03		.44				.88				.06		2.72
Haverhill	...do	.06				T.			.35	T.	.02								.07	.28	.05		.50	.01	T.	T.	.40	.25			.08		2.07
Hingham	Coast				T.				.38				.23						.40		.03		.44		T.	*	.83				.06		2.37
Hyannis	...do	.09							.29	.01			.33						.03	.41	.09		.27				1.37				.03		2.92
Jefferson	Merrimac											.51							.89				.14				1.38			.17			3.09
Lake Cochituate	...do				.02				.42	.02		.25							.58	.02			.54				.80				.06		2.71
Lawrence	...do							T.	.56	.03									*	.53	T.		.59				.74				.11		2.56
Leominster	...do				.01				T.	T.		.09	.06					T.	.36	.73	.04		.20			T.	1.11	.36			.12		3.08
Lowell	...do								.20			.05							*	.82	.07		.37				.89				.17		2.57
Middleboro	Coast				T.	T.			.16	.04		.05	.02					.02	.10	.48	.03		.18				.94			.04			2.06
Monson	Connecticut	T.			.02	.02	.02			.02			.23					.02	.68	.30						.15	.94	.35			.10		2.85
Nantucket	Coast	.05			.08	.01			.08	.03		.03	.22						.04	.16	.08	.15	.34				1.63		T.		.05		2.95
Norfolk	...do	T.							.23				T.						*	.37	T.		.39			T.	.48				.05		1.52
Northampton	Connecticut										1.62								.96								1.77	.26	.45				5.06
Plymouth	Coast				.04			T.		.08			.13						.56		.05		.20			.02	*	1.38			.05		2.51
Princeton	Merrimac	.06			*	.10				.06		.28							*	.80	.10		.30			*	1.48				.26		3.44
Provincetown	Coast	.06							.24	.12	.05								T.	.54	.30		.38				.64	.70			.05		3.08
Rockport	...do	.10							.30		.10									.55			.40				1.55	.42			.10		2.52
Rutland	Connecticut		.02							.01		.42						.11	.80	.05			.08	.02	.01	.60	.73			.11			2.96
Salem	Coast																															
Somerset	...do				.01				.11			.12							.23	.06			.04				.71				.04		1.32
South Egremont	Housatonic			.04	.07		T.	.10	.06	.04		.58					T.	.12	1.20	.03		T.			T.	2.10	.20	T.		.12		4.66
Spot Pond	Coast				.01			.36	.09			.16						.04	.63	.05		.30	.06	.01		.05	.81			.07	.04		2.98
Sterling	Merrimac											.23							*	1.02	.05						*	.81	.52			.14		2.77
Taunton	Coast				T.				*	.10			T.						*	*	.55		.09				.90				.05		1.09
Turners Falls	Connecticut				.07							.22							.44	.43			T.				1.89				.07		3.12
Westboro	Merrimac	T.			T.				T.	T.		.25							*	1.05	.04							1.00			.08		2.42
Williamstown	Hudson				.07		.02	.13	.15	.15	T.	.38						.07	.27	T.						.34	.88			T.	.07		2.53
Winchendon	Connecticut				.03					.02		T.	.16						.10	.86			.33	.02		.04	.70	.54			.09		2.89
Worcester	Coast				.04				.02	T.		.39	.18					.07	.84	.39			T.		T.	.01	.55				.21		2.70
Rhode Island.																																
Block Island	Coast				.14				.04	.02		.05	.10				.04	.01	.24	.03						.01	.52			T.	.04		1.24
Bristol	...do				T.				.19	T.		T.	.17						.16	.27	.04						.54	.50			.03		1.90
Greene	...do	.05			.01							.10							.87	.10							1.25				.10		2.48
Hope Valley	...do	.01			T.	T.	T.				T.		.30						.17	.38	.26	.13				.03	.65	.20			.10		2.06
Kingston	...do	.08			.07								.30						.02	.67	.03						.74				.11		2.02
Narragansett Pier	...do	.07			.06				T.	T.			.46						T.	.29	.18	.02				T.	.47	.21			.05		1.81
Pawtucket	...do				T.	T.			.16			.06							.52	.02			T.			T.	1.00				.09		1.85
Providence	...do				T.			T.	.14	T.		.03	.03					.01	.55	.02	.01				T.	T.	.81		T.		.04		1.64
Wallum Lake	...do																		.40	.05							.60	.20			.10		1.35
Connecticut.																																
Bridgeport	Coast	.01			.17		.16	T.	T.	T.		T.					T.	.24	.46	.05					1.39	.95			T.	.19		3.63
Canton	Connecticut				.04		T.			T.		.07						T.	1.12	.02						*	2.60			.11			3.96
Colchester	Coast				*	.13		T.	T.	T.		T.	.10				T.	T.	.32	1.19	.02					.57	1.21	.48			.07		4.09
Cream Hill	Housatonic				.09			.04	.05	.03							.02	.07	.68	.03						.66	2.05						3.72
Danielson	Coast	.06										.05							.20	.80	.10						.74	.50			.10		2.55
Falls Village	Housatonic							.11		.03		.16						.08	.82	.02						1.10	1.72	T.		.13			4.17

TABLE 2.—*Daily precipitation for April, 1910. District No. 1*—Continued.

Stations.	River basins.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Connecticut—Cont'd.																																	
Farmington	Connecticut				.06	T.	.04		T.	.03		.01	T.				T.	.02	.72	.02				T.	.69	1.49	T.		T.	.07		3.15
Hartford	do												.24						.70	.48	.10					.99	1.70				.16		4.42
Hawleyville	Housatonic	.05											.20						.21	.89						.61	.65	.32					2.88
Lake Konomoc	Coast				.15		.02	.01	T.	T.		.05	.10				.03	.19	.31	.03	T.				1.59	.72			T.	.15		3.35
New Haven	do				.14			T.	T.	.02							.03	T.	.36	.08					.63	.72						1.98
New London	do	.05			.01				.02	T.			.04						.35	1.16	.05				.02	1.19				.14		3.03
North Grosvenordale	do				*	.14	.26					T.						*	.95	.15					*	1.91			*	.20		3.61
Norwalk	do	T.			.05	T.	.10						.05						.80	.20					1.70	1.10	T.					4.00
Southington	do				.03	T.										.17		.35							*	1.35			.14			2.04
South Manchester	Connecticut																		.36	1.19						16	1.03	.43			.03		3.20
Storrs	Coast																																
Torrington	Housatonic				T.				T.	T.								T.	.30	.60	.04					.10	.74	.50			.09		2.37
Voluntown	Coast				.11		.03		.02			.17					T.	.16	.20	T.					2.02	.39			.05			3.15
Wallingford	do				*	.07	.07	*	*	.02			.12				T.		.40	.23					.88	2.12			*	.12		4.08
Waterbury	Housatonic	.05			.05		.02		.02	T.		.01						*	1.21						*	2.89				.08		4.28
West Simsbury	Connecticut																																
New York.																																	
Addison	Susquehanna			*	.42	T.		.10	.01	T.		T.					.11	.03	.41	.33	.24	.34		T.	2.12	.87	.22	.02		.92	.03		6.17
Albany	Hudson				.22	.01	.82	.46	.01	.03		.29						.02	.92	.07		T.	T.			.40	.89			.03	.02		4.19
Alfred	Susquehanna																																
Amsterdam	Mohawk	.02			.03		T.	.53	.07	T.		.22						*	.55	.05					T.	1.10				T.			2.57
Athens	Hudson				.14		.92	.08	T.	.06		.72					T.	T.	1.74	.14		T.				.32	1.70		T.	.06	.02		5.90
Ballston Lake	do				.15	.01		.83	.03	.01		.20	.08					.03	.32	.21	.04					.25	1.00		T.	T.	.05		3.41
Bedford	Coast	.02			.06	.02				.04			.06					.09	1.21	.35	.01					1.80	1.35	.07			.12		5.20
Binghamton	Susquehanna				.16		.06	.10	.01	T.		.08						.02	.25	.16	T.	.07			.44	.28	.06	.03		.37			2.09
Bouckville	do				.06			.24	.10	.03		.28	.20						.48	.03	.12				.18	.12	.35			.08	.05		2.32
Carmel‖	Hudson				.07	T.				T.	.11							*	.36	1.45						.74	2.18			.22			5.13
Chatham	do	.01			.20	.01		.28	.05	.15		.08	.75						.45	.10	.03					.16	1.20				.12		3.59
Cooperstown	Susquehanna				.10		T.	.45	.16	.05		.55						.04	.74	.06						.10	1.88				.14		4.27
Corinth‖	Hudson							.35	.12										.28	1.20	.08						1.51				.10		3.64
Cortland	Susquehanna				.02		.09	.17		.01		.02	.27						.03	.01	.20	.04			*	.87	.46			.30	.13		2.52
Cutchogue	Coast				.16	.02			T.	T.							T.	.09	.16	.46						.67	1.03	.04		T.	.12		2.75
De Ruyter	Susquehanna				T.		.12	.19	.11	T.	.02	.37	.07					T.	.23	.02				.06	.26	.36	.18			.14			2.13
Easton	Hudson				T.		.40		T.	.13		.05							.96						*	1.10			T.				2.64
Elmira	Susquehanna				.41		.06				.07			.42					3.09	.45										.65			5.15
Fort Hunter‖	Mohawk																																
Fort Plain	do				.08	.01		.31	.02	.13		.22	T.					.03	.45	.83	.06	T.				.06	1.30	.09		T.	.05		3.64
Glens Falls	Hudson				.07	.03	.02	.40	T.	.24								T.	1.02	.22						.22	1.28			*	.17		3.67
Gloversville	Mohawk				.04	T.	T.	.34	.10			.10	.08					.13	.90	.04						.12	1.15				.03		3.03
Greenfield Center	Hudson				.15			.55	.05	.10		.10							.87	.35						.20	1.08				.08		3.53
Greenwich	do					.01	.01	.60	.02	.22	.01	.03	.03					T.	.44	.22	T.					.06	.72				.02		2.39
Griffin Corners	Delaware				T.		T.	.78	T.	T.		.11	.36				T.	T.	1.05	.09	.19					.65	2.77			.11	.12		6.23
Haskinville	Susquehanna				.22		.05	.10		T.			.09				.21	.41		.66	.41	.43		T.	*	2.26	.67			.97	T.		6.49
Homer	do				.02	T.	.19	.05	.02	.05	T.	.29					T.	.02	.05	.04	T.	.18		.09	.21	.52	.40	T.		.30	.01		2.44
Hoosick Falls‖	Hudson				*	.10	*	1.08	.14	.24	T.	*	.30					*	.08	.30						*	.76	.10		*	.03		3.13
Indian Lake	do							.30		.05	.15								.50		1.00					.10	.50				.05		2.65
Jeffersonville	Delaware				.24		.55	T.	T.	T.	.07	T.	.09				T.	.15	.88	.04	T.	.11			T.	.68	1.20		T.	.25	.28		4.54
Lake Pleasant	Hudson									.60								1.30	.40							.10	1.60	.10			.20		4.30
Liberty	Delaware			.25			.18	T.		T.		T.						.10	.20	1.10		.10				3.00			.05	.10	.30		5.38
Little Falls	Mohawk				T.		T.	T.	.40	.20		.35							.40	T.							.48	.36		T.			2.19
Mohonk Lake	Hudson			*	.10							.04						3.44	*	.62					*	.74	2.85			.24			8.03
Moreheusville	Mohawk				.03		.02	.30	.10			.05						.02	.65	.35	.15					.10	1.45	.22			.06		3.50
Mount Hope	Coast				.15	.10				.20								.20	.45	.55						1.75	2.10			.20	.35		6.05
Newark Valley	Susquehanna				.25	T.	.02	T.	T.									.02	.10	.38	T.	.20		T.	.50	.50	.05	T.		.57	.04		2.63
New Berlin‖	do	T.			T.	T.			T.	.01	.01	*	.47					*	.25	.30	.06	T.			T.	.21	.60			*	.27		2.18
New Lisbon	do				.07			.44	.08			.36					.02	.05	.57	.02	.04					.25	.92			.10	.09		3.01
New York	Coast				.20	.01	.05			T.		T.					T.	.72	.47	.55		T.			.05	1.47	.85			.14	.02		4.53
North Creek	Hudson							.25	.02	.05								*	1.66							*	1.50				.08		3.56
Northville‖	do						.50											.59	1.00	.12						.92							3.13
Norwich	Susquehanna				.25													.02	.12	.43	.18		.02			.45	.10				.02		1.59
Oneonta	do					.01		.14	.10	T.		.32	.15				.07		.31						40	.43			.04			1.97
Oxford	do				.04		T.	.34	T.			.30	T.					T.	.96	T.	T.	T.			.33	.37	.40			.22			2.96
Port Jervis	Delaware	.01		.04	.04		1.00	.36		.63		.23						.04	.24	1.39	.60	.21	.09			.95	1.84			.18	.13		7.98
Salisbury	Mohawk				.15			.21	.08			.27							.74	.18							1.30	.14			.08		3.15
Salisbury Mills	Hudson											*	.17					*	1.55	.40						1.32	2.98			*	.22		6.64
Scarsdale	Coast				.15	.10	T.			T.		T.						.50	1.00	1.00				T.	1.15	1.50	2.00			.10	.20		7.70
Setauket	do	.02			.14	T.	.10		T.	T.			T.				T.	'1	.24	.06	T.				T.	1.36	.72			.05	.05		2.85
Sherburne‖	Susquehanna	T.				T.		*	.08	.07	T.	*	.37				T.	'1	.24	.55	.15				*	.31	.34	T.		*	.18		2.29
Southampton	Coast	.06			.18	.04	T.		.07	.02	T.	T.	.05				.02	.03	.14	.58	.04				T.	.20	.81	.22			.17		2.63
Spier Falls	Hudson				T.			.51	T.	.12									1.70	.20						.22	1.38				.20		4.33
Trenton Falls‖	Mohawk	.14				T.	T.	.19	.14	T.	T.		.39						.29	.21	.09					*	.80			.04			2.29
Tribesbill‖	do				.20		*	.70	.10			.40						*	.80	.20						*	1.10			.10			3.60
Utica‖	do				.09	*	.14	.41				.04	.42						.03	.47	.38					*	09		*	.18			2.25
Wading River	Coast	.06			.20	.02				.13		*	.03					.02	.25	.40	.05					1.23	1.35			.02	.17		3.93
Wappingers Falls	Hudson				.18	T.	T.	T.		.10		.10						.18	1.64	.42	T.					.74	1.72	.21					5.29
Warwick	do							.15					.13						.95	.18						.35	1.52				.22		3.50
Waverly	Susquehanna				.35		.15	.13	.02	.02							.08	.08	.09	.63	.14	.27	.02	.01	.22	1.07	.05			.09	.10		6.12
West Berne	Mohawk				.05			.10	T.			.13						T.	.80	.13	.05					.48	1.76			T.	.03		3.53
West Point	Hudson				.10					.05		.10						*	4.20	.60					.90	*	3.20			.30			9.45
Windham	Mohawk				.11		.12	.81	T.	.12		.25	.62				.06	.05	1.02	.20						.88	2.05			.06	.05		6.40
Pennsylvania.																																	
Altoona	Susquehanna			.06	.16									.13	T.	.65	.42	.40	.16	.03	.14		1.26	.14			.24			3.79
Ansonia‖	do				.20	T.		T.	.04		T.		.07			.21	.02	.55	.04	.14	.25		1.75	1.48	1.76				.31		6.82
Bellefonte	do				.59		.02	T.						.13			.25	1.60	.75	.16	.18		1.86	1.52	.32	.26			.18			7.82
Bethlehem	Lehigh				.15	.01		.61		.09			.04			T.	.37	1.34	.11	.02	.21				.97	.73	.47			.11	.51		5.74
Browers Lock	Schuylkill				.60												2.03		.37	.10	.01				.75	.39	.06			.30	.02		4.63
Catawissa	Susquehanna				.22			T.		T.		T.				.07		.30	.17	.80	.38			1.31	2.02	.37				.40			6.04
Center Hall	do				.15	.42		T.								.20		.33	1.20	.55	.15	.15		.10	1.74	1.33	.74	.10		.15			7.31
Clearfield	do																																
Coatesville	Coast			T.	.83		.06	.18		.04								1.82	1.19	.58	.05	.07			.72	.12				.26			5.92
Doylestown	Schuylkill				.08			.04										1.71	1.84	.27					2.79	1.00					.20		7.93
Drifton	Susquehanna				.3		.02	.15		.05							.42	.80	1.42	.65	.03	.33			1.22	.68	.50			.30	.40		7.10
Emporium	do			T.	.29		.05	T.		T.		T.	.07			.18	.07	.45	.95	.55	.22	.08		.05	.76	.93	.23	T.		.26			5.14
Ephrata	do				.24		.01	.08		.06		T.	T.				T.	.89	.93	.81	T.	.29			.72	.03	.02			.29	.03		4.40
Everett	Juniata				.39		T.	T.		T.						.08		1.59	.09	.46	.14	.11		.07	.95		.15	.12		.20			4.35
Forks of Neshaminy	Delaware					.42		.07										.90	1.46	.35		.04			2.20	.69	.78						6.91
George School	do				.45													.96	.62						1.54	.41	.94			.25	.10		5.27
Gettysburg	Potomac			.05	.31					T.								1.80	.47	.18	.24	.17			1.65	.65	.47			.10			6.09
Girardville	Susquehanna				.34		.10	T.				.02				.03		1.00	1.27	1.10	.28	.14		.10	2.00	.82	.15	T.		.30	.10		7.75
Gordon	do				.19	.18		T.	.02			.08						.78	1.68	.72	.05	.58			1.63	1.55	.26	.05		.23	.06		8.06
Hamburg	Schuylkill					*	.85											2.60	1.00	1.40	.20				2.05					.40			8.50
Hanover	Susquehanna			.11	.20		.09		T.	T.						.03		1.50	.11	.21	.22	.12		.61	1.13	1.27				.09			5.69
Harrisburg	do			.02	.02			.01		.01		T.				T.	T.	1.01	.08	.28	.20	.05		.64	1.45	.28		T.		.15			4.20
Huntingdon	Juniata			.04	.25			T.								.12	.64	1.27	1.03	.11	.15			.18	.50	.95	.17	.11		.15			5.67

TABLE 2.—*Daily precipitation for April, 1910. District No. 1*—Continued

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Pennsylvania—Cont'd.																																	
Hyndman	Potomac			.30	.08		T.	T.		T.						.05	.27	.53	.80	.03	.12	.05		.18	.48	.78	.36			.04			4.07
Kennett Square	Coast			*	.82		T.											1.36	1.49	.61	.05				.22	.11				.22			4.88
Lancaster	Susquehanna				.40		.17			.20								1.12	1.11	.28		.45			.88	.13				.22			4.96
Lansdale	Schuylkill				.52			.04										1.24	1.12	.32		.04			1.58	.66	.63		.04	.38	.04		6.61
Lawrenceville	Susquehanna				.65		.05	.10	.10			.10					.10	.10	.35	.35	.75	.25			1.75	.75	.12			.80	.07		6.39
Lebanon	...do			*	.07		.16	.28		.04			T.				T.	1.02	1.35	.49	.02	.39			1.52	.43	.20			.30	.08		6.35
Le Roy	...do				.48	.01	.18	.05	.04	.02		.01	.12				.21	.28	.27	.64	.05	.27		.12	2.55	1.12	.25			.75	.07		7.49
Lewisburg	...do				.06	.27						.03					.18	.85	.77	.67	.10	.16			1.82	.92	.18			.40	.06		6.47
Lock Haven	...do				.49		.05	.02	.04	.02		.05					.41	.40	.35	.55	.12	.12		.30	1.00	.96	.40	.05		.25	.03		5.61
Marion	Potomac			.30	.20			T.										1.27	.70	.35	.23	.08		.08	1.20	.63	.34			.09			5.47
Mauch Chunk	Delaware				.21	.05	.34	.12		.02								1.00	1.82	.54	.29				.71	1.16	.29			.49	.31		7.35
Mifflintown	Juniata				.14	.14		.02	T.								.01	1.20	.63	.61	.09	.08			1.78	1.40	1.15	.05		.12	.01		7.43
Milford	Delaware	.02			.01	.03		.75	.03	T.			.15					.31	1.59	.05	.03	.07			T.	.68	1.27	.02		.17	.38		5.56
Montrose	Susquehanna				.15			.09	.04	T.		T.						.16	.41	.11	.20	.19			.23	.85	.06			.21	.08		2.78
Mountain House	Juniata			.47			.03	T.									.02	1.86		.71	.13	.22		.33	.67	.33	.22	.19			.21		5.39
Muncy Valley	Susquehanna				.20		T.					.22				T.	.13	.56	.49	.70	.42	T.		1.32	2.43	.78			.63				7.88
New Germantown	...do																	1.45	1.30	.52	.10	.13			1.62	1.35	.55	.09		.20			7.31
Ottsville	Delaware				.26			.04										.83	1.17	.26		.08			2.55	.27	.61			.19	.31		6.57
Philadelphia (1)	...do			.01	.55		.03			.04								1.16	.66	.38		.02			1.05	.60	.04			.22			4.76
Pocono Lake	...do				T.			T.									.22	.83	1.18	.20		.38	.08		1.60		.97			.23			5.69
Point Pleasant	...do				.31													.87	1.28	.24					2.00	.87	.63			.20	.21		6.61
Pottsville	Schuylkill				.18		.28					.04						.91	1.63	1.19	.27	.10			2.93	.14	.07				.39		8.13
Reading	...do			.02	.21		.53			.01								1.25	1.09	.49	.16	.02			.16	.07				.37			5.38
Renova‖	Susquehanna				.06	.10				.01			.02				20	.06	1.56	.40	.26	.30			1.04	1.76	1.02	.08			.20		7.07
Scranton	...do				.07		.19	.02	T.	.01		.20	.03			.02	13	.08	.37	.21	.02	.17			.95	.44	.06	T.		.44			3.41
Seisholtzville	Schuylkill				.16		.17	.21										1.20	1.75	.26		.20			.85	.33			.45	.02			5.60
Selinsgrove	Susquehanna				.10	.54		T.	.02	T.		T.	.07				.01	.70	.48	.87	.08	.18			1.85	1.11	.25			.42	.04		6.72
Shawmont	Schuylkill				.65			.05		.08								1.30	.99	.60		.05			.42	.10	.52			.20	.10		5.04
Smiths Corners	...do				.32													1.08	1.38	.22		.18			2.00	.78	.79			.27	.21		7.23
Spring Mount	...do				.43		.10											1.04	1.15	.40		.12			.45	.36	.16			.37	.06		4.64
State College	Susquehanna			T.	.62	T.	T.	T.	T.			T.	T.			.10	.05	.30	1.72	.93	.13	.12		.14	1.18	1.09	.22	.33	T.	.15			7.08
Towanda	...do				.18	T.	.03	.01		T.		T.	.04				.08	.18	.15	.79	T.	.31		.05	2.17	.78	.03	T.		.54	.02		5.36
Wellsboro	...do				.25		.08	T.					.13				.28	.08	.22	.27	.07	.21			2.46	1.19	.86			.31			6.41
West Chester	Coast			.01	.78			.03		.07								1.35	1.51	.53	.03	.04			.60	.25	.01			.28	.01		5.50
Wilkes-Barre	Susquehanna				T.	.04		.14	.01	T.			.24				.18	.04	.50	.24	.32	.25			1.42		.10				.46		3.88
Williamsport	...do			.07	.04		T.	T.					.04			T.	T.	.08	.87	.49	.48	.14		*	1.76	2.00	.22			.32			6.51
New Jersey.																																	
Asbury Park	Coast				.30		.30		T.	.05		01.						.50	.36	.82					*	.64	1.50			*	.06		4.54
Atlantic City	...do			.23	.51		.21			.08			T.				T.	1.06	.24	.61		T.			.07	.86	.14			.21	.01		4.23
Bayonne	...do				.30	.03	.03			T.		.02					T.	.62	.67	.60	T.	T.			*	1.16	1.66			.04	.18		5.31
Belvidere	Delaware				.12		*	.11									.05	.89	1.44	.12		.18			.53	*	2.13			.25	.19		6.01
Bergen Point	Coast				.36	.02	.03	T.		.05		.04					T.	.96	.74	.63	.03	.01			*	1.36	1.57			.03	.20		6.03
Boonton‖	Passaic	.03			.16	.11		.04				*	.08				.03	*	2.05	.69	.40	.04			*	1.25	1.48			*	.30		6.66
Bridgeton	Coast				.32						T.							1.43	.52	.45		.05			.25	.18	.20			.15			3.55
Burlington‖	Delaware			*	.48		.07			.02							T.	1.15	.70	.42	.02				1.56	.99				.31			5.72
Canton	Coast			*	.44		.05			T.								*	2.15	.31	T.	.09			.05	.07				.27			3.43
Cape May	...do			.06	.04		.18	.01		T.			T.					1.87	.29	.10		.04			.01	1.30	.06			.14			4.10
Charlotteburg	Passaic				.17							.05						*	*	3.57					*	1.32	2.05			*	.40		7.56
Chatham‖	...do	.05			.10	.12		.04		*	.03						.06	.04	1.85	.55	.40	.03			*	.95	1.50			*	.30		6.02
Clayton	Coast			*	.58		T.											1.26	.95	.52					*	.13	.53			*	.25		4.22
College Farm	...do	T.			.37		.03		.01	.03		.01					.01	.84	.96	.40	.01	.02			*	.58	1.50			.24			5.01
Culvers Lake	Delaware				.07		*	.22		T.		*	.20				.04	.79	1.36	.21		.13			*	.49	1.03			.24	.20		4.98
Dover	Passaic				.21			.12				.01					.10	1.50	1.75	.28		.07			*	*	2.74			*	.39		7.17
Elizabeth	Coast				.38													*	*	2.00		.09			*	.73	1.05			.20			4.45
Flemington	...do	T.			.30		T.	.09					T.				T.	.80	1.40	.28		.06			.13	.40	1.05			.08	.35		4.92
Friesburg	...do																																
Haddonfield	Delaware			*	.54		T.	.04		.06								1.01	.97	.49		.03			.51	.36	.73			.13	.17		5.04
Hammonton	Coast			*	.69		.17			.05								1.00	.63	.43					.68	.27	1.20			*	.32		5.44
Hightstown	Delaware				.58		.08	T.		.07								.63	.66	.53					.29	.70		.04		*	.31		3.89
Imlaystown	...do				.55		*	.17										*	*	1.83					*	.23	.70			*	.37		3.85
Indian Mills	Coast			*	.75		.21			.05								.77	.55	.30		.10			.40	.50	1.21			*	.24		5.08
Jersey City	...do				.26	.01	.03	T.	T.	T.		T.					T.	.69	.71	.61		T.			.05	1.44	.98			.09	.08		4.95
Lakewood	...do																																
Lambertville	Delaware				.42		T.	.06		.01			T.					.84	1.58	.30		.03			1.69	*	.04			*	.42		6.29
Layton	...do																																
Little Falls	Passaic				.26	.03					.09	T.						1.29	1.52	.29		T.			.18	2.70	.57	.04		.22	.03		7.22
Long Branch	Coast				.44		.32		T.	.12								.50	.35	.67	.02				*	.62	1.61			*	.14		4.79
Mahwah‖	Passaic																																
Moorestown	Delaware			*	.49		.01	.04		.02		T.						.90	.87	.53		T.			1.00	.58	.93			.02	.25		5.64
Newark	Passaic				.22	.01	.02	T.				.01						1.19	.31	.46		T.			.52	1.42	1.00	T.		.11			5.27
New Brunswick	Coast				.40		.05			.12							T.	.80	.95	.32		.65			*	.30	1.80			.20			4.99
Newton	Delaware				.13		*	.08			*	.09					.06	*	1.67	.17		.13			*	.44	1.12			*	.42		4.31
Northfield	Coast			*	.68		.23			.02			T.				T.	.99	.33	.48		T.			.07	.05	1.36			.03	.24		4.48
Oceanic	...do						.15			.11								.47	.53	.80					*	1.08	1.52			*	.24		4.90
Paterson	Passaic				.20		T.			T.		T.					T.	.58	1.83	.51		T.			*	1.73	1.81	.01		.04	.14		6.85
Phillipsburg	Delaware				.17	.01	.10	.05		T.		.07	.01					.66	1.17	.19		.15			.98	.92	.06			.43	.07		5.04
Plainfield	Coast				.46	.02	T.	.02		.02		.01					T.	.80	.91	.38		.03			*	1.77	.41			.21			5.04
Pleasantville	...do			*	.73		.24			.05								1.07	.35	.51					.06	.27	.72			.18	.09		4.27
Pompton Plains‖	Passaic				.05	.12		.05			*	.10						*	1.28	.82	.28	.02			*	1.04	2.84			*	.30		6.90
Rancocas	Delaware			*	.55		T.	T.		.01			T.					.80	.78	.50		.01			1.00	.50	.87			*	.27		5.29
Rivervale	Coast																																
Runyon	...do																																
Somerville	...do				.40	.03							T.					.80	1.20	.30	.03				*	.41	1.41			.07	.15		4.80
South Orange	...do				.34	.02	T.	T.		T.			T.				T.	1.50	1.32	.40		T.			.15	1.23	.95			*	.24		6.15
Sussex	Hudson				.05		*	.28		T.		.16						.27	1.18	.14		.04			*	.37	1.79	T.		.12	.24		4.64
Trenton	Delaware			*	.57		T.	.02		T.			T.					1.00	1.00	.52		.05			.15	.45	.99			.03	.30		5.08
Tuckerton	Coast			*	.85		.30			.06								.98	.42	.90		.13			*	*	.97			*	.34		4.95
Vineland	...do																																
Woodbine	...do																																
West Virginia.																																	
Bayard	Potomac			.10	.11		.05	.33					T.			T.	.40	.35	.27	.17	.22	.25		.13	.22	.27	.22	.08		T.			3.17
Burlington	...do	T.		T.				T.								T.	T.	.77	.40					.20	2.00	.40							3.77
Franklin	...do																	1.30							*	1.20							2.50
Harpers Ferry‖	...do				.42													.90	.95	.11	.20	.32				2.40							5.30
Lost City	...do			.36								.27				T.	.06	.78	.38		.25	.04		.10	1.15	.25	.03						3.67
Martinsburg‖	...do			.55	.05													*	1.84	.25	.17	.23			.66	.16			.05				3.96
Moorefield	...do	T.		.25	T.		T.	T.				.07					.35	.65	.55	.35	T.	.25		.37	.25	1.55	.17						4.81
Romney‖	...do				.27	.25	T.		T.								T.	.40	.52	.42	T.	T.	T.		.23	1.01	.18	.05					3.33
Upper Tract	...do			.39	.06							.19				T.	T.	.58	.25			.15	T.		.28	.32	.15						2.37
Maryland.																																	
Annapolis	Coast				.41			.20		.05								.02	2.80	.90	.20	.70			1.40		.50				.20		9.36
Bachmans Valley	...do			.05	.46		.05											1.19	.25	.26	.15	.22	.05	T.	1.03	.90	1.00			.10	T.		5.71
Baltimore	...do	T.		.04	.10		.08			T.							T.	3.39	1.06	.51	.13	.44		.57	1.18	.19			.07				7.76
Cambridge	...do			.24			.07					.18						2.48	1.53	.31		.37	.16		.33	.03	.05			.08			5.83

TABLE 2.—*Daily precipitation for April, 1910. District No. 1*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Maryland—Cont'd.																																	
Cheltenham	Coast			.09	.31			.12					.03					2.88	2.22	.39		.23	.11	.10	1.79	.68	.16			.02			9.13
Chester	do																																
Chestertown	do				.25													1.20	.75	.35	.90				.30				T.	T.			3.75
Chewsville	Potomac			.41	.17			T.		T.							.01	1.84	T.	.41	.36	T.	.01	.86	.43					.04			4.64
Clear Spring[1]	do				.52	.08		T.			T.							.43	1.01	.19	.22	.23	.15		.47	.87	.10				.05		4.32
Coleman	do																	1.05	1.48	.39		.34								.11			
College Park	do			.10	.26			.07										2.10	1.02	.22	.10	.21	.29	.16	1.12	.53	.13			T.			6.31
Cumberland	do				.40	.10	.02	T.	T.								.03	1.05	.75	.40	.03	T.	.03	T.	.15	1.10	.20	T.			T.		4.26
Darlington	Coast			T.	.30			.07										1.20	1.19	.43	.05	.20			1.00	T.	.19			.10			4.73
Denton	do				.12		.04											2.17	1.36	.34		.46	.05		.03	T.	.02			.04			4.63
Easton	do				.13		.02	.21										1.65	1.88	.32		.52			.33						.09		5.15
Emmitsburg	Potomac			.07	.41													1.60	.63	.12	.23	.12			1.71	.61	.16			.09			5.75
Fallston	Coast			.02	.24			.18		.03			T.					1.83	2.43	.66	.01	.38		T.	1.49	.01	.19			.10	.01		7.58
Frederick	Potomac	T.		.33	.13	.01				T.		T.				T.		1.47	.04	.14	.22	.17	.01	.31	1.38	.18	.03			.04			4.46
Frostburg	do			.17	.38		.01	.07	.02							.12	.36	.52	.34	.29	.14	.18	.03	.08	.22	.80	.22	.08					4.03
Great Falls	do				.46	.04												1.36	1.48	.18	.07	.14	.20		.73	.49	.22						5.37
Green Spring Furnace	do			.40	.23	.03												.74	.72	.36	.20	.02		.08	.50	.58	.15	.02		.09			4.12
Keedysville	do	T.		.37	.17			T.		T.							T.	1.22	1.74	.31	.25	.05		.05	1.35	.83	.17	T.		.03			5.54
Lake Montebello	Coast			*	.12	T.		.07		T.			T.					2.42	1.45	.47	T.	.43	T.	*	1.62	.01	.10			.07			6.76
La Plata	do			.28	.42			.06					.13					2.94	1.84	.30		.19	.09	.42	1.33	.31	.36						8.67
Laurel	do			.23	.25			T.		.03								2.30	1.60	.05	.02	.60	.03	.28	2.15	1.60	1.20			.02	.01		10.37
Monrovia	Potomac	T.		.20	.15					T.							T.	1.62	.23	.21	.12	.13	.14	.32	1.06	.26	.18			.05			4.69
Pocomoke City	Coast			.04	.05			.09					.56					3.42	.35	.15		.38	.02			.01							5.07
Porto Bello	do			T.			T.						1.85				*	2.00	2.00			.20			.70								6.75
Princess Anne	do			.08	.09		.10						.45					2.68	.65	.27		.52			T.	.05				.03			4.92
Rockville	Potomac			.52	.02			.02		.02			T.				T.	2.20	.40	.16	.05	.33	.02	.02	1.10	1.49	.24			.02			6.61
Salisbury	Coast			.02	.08								.37					2.57	.55	.22		.38	.07		.02	T.	.01				.04		4.33
Sanatorium	Potomac			.16	.25	.02		T.	T.			T.						1.67	.57	.22	.26	.14	T.		1.90	.55	.26			.06	.02		6.08
Solomons	Coast			.15	.16		.07						.22					1.13	.39	.10		.23	.01		.19	T.	.09	T.		T.			2.74
Sudlersville	do			.02	.33		.04	.03		T.			.03					1.60	1.28	.37	.28	.08		.05	T.					.08			4.19
Takoma Park[1]	do				.42	.05								T.				1.60	1.55		.15	.21	.40		.42	.66	.49	.02			T.		5.97
Taneytown	Potomac			.13	.44		.01											1.93	.14	.30	.13	.35		.75	.91	.43	.48			.08			6.08
Towson	Coast			T.	.13			.06		T.								2.00	2.16	.43	T.	.38	.03		2.00	.17	.14			.10	.02		7.62
Van Bibber	do				.67		.15					T.						2.21	2.00	.44		.41			1.64		.13			.06			7.71
Westernport	Potomac				.43												.38	.78	.02		.39	.12	.03	.12	.84	.11						3.22
Woodstock	Coast			.02	.13								T.					1.87	.13	.09	.29	.24			1.43	.67	.27			.03	.04		5.21
Delaware.																																	
Delaware City	Coast			T.	.37		T.	T.		T.			T.					1.09	.92	.34		T.			T.	T.	.25			T.	T.		2.97
Dover	do			T.	.39		.05			.02			T.					2.00	.60	.21	T.	.07			.04	.06				.07			3.51
Milford	do				.16		.50			T.			T.					2.60	.45	.31		.07	.03		.04	.10	.04				.04		4.34
Millsboro	do			T.	.14		.22						.14					2.90	.34	.28		.12			.06	.03							4.23
Seaford	do				.05		.20			T.			.10					2.50	.31	.20		.22			.05	T.					.08		4.21
District of Columbia.																																	
Washington	Coast			.13	.32		.01	T.		T.			T.			T.	.07	2.74	.52	.16	.12	.32	T.	.24	.97	.29				T.			5.89
Virginia.																																	
Culpeper	Rappahannock			.58	.20								.20					1.62	.29	.12		.04			.30	.35				T.			3.70
Dale Enterprise	Shenandoah	.07		.28	.24		T.						.31			T.	1.00	.70	.30		.02	.01		.06	.12	.53		T.		T.			3.64
Doswell	Coast			.45	.32													2.94	1.32	.13				.24	1.23	.61							7.24
Eastville	do			.13	.15								.04	.18				.85	1.08	.08		.14			.04						T.		2.69
Fredericksburg	Rappahannock	T.		1.07	.18		T.	.01					.26					2.50	.53	.15	T.	.13	.12	.18	1.74	.87	.02	T.		T.			7.76
Lincoln	Potomac			.41	.28													1.65	.13			.51		.28	.74	.43							4.43
Mount Weather	do	T.		.37	.27					T.		T.	T.			T.	.23	1.17	.43	.19	.14	.02		.16	.16	.50	T.			T.			3.64
Nokesville	do																																
Quantico	do			.60									.50					2.38	1.97			.10			1.21	.18	.30			T.			7.24
Shenandoah	Shenandoah	T.		.20	.26								.23					1.53	.63	.23	.05			T.	.09	.88	.04						4.14
Staunton	do	.04	.13	.50									.56			T.	1.59	.40	.18		.04	.04		.11	.17	.72		.18					4.66
Stephens City	Potomac			.29	.17													1.05	.85	.13	.15	T.		.40	.33	.60	.17						4.23
Warsaw	Rappahannock			.40	.12								.52					2.00		1.52		.11		T.	1.22	.10	.05			T.			6.04
Woodstock	Shenandoah			.29	.15								.10				.02	.51	.85	.12	.20			.03	.15	1.62	.11						4.15

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 1, North Atlantic States.*

Date.	Maine.												Massachusetts.								Connecticut.							
	Eastport.		Greenville.		Orono.		Portland.		Presque Isle.		Rumford Falls.		Concord, N. H.		Amherst.		Boston.		Middleboro.		Nantucket.		Providence, R. I.		Cream Hill.		Hartford.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	53	36	53	33	55	35	56	36	56	33	56	35	63	35	63	38	63	43	63	43	58	41	63	41	63	38	67	41
2	55	34	56	34	58	37	58	37	58	37	59	37	69	36	69	39	69	44	69	44	60	44	69	44	69	39	72	44
3	58	31	58	31	60	31	60	31	60	31	60	31	72	41	72	41	72	41	72	41	63	41	72	41	72	41	72	41
4	61	41	61	41	63	41	63	41	63	41	63	41	78	47	78	47	78	47	78	47	69	47	78	47	78	47	78	47
5	63	36	63	36	65	36	65	36	65	36	65	36	82	44	82	44	82	44	82	44	72	44	82	44	82	44	82	44
6	67	44	67	44	69	44	69	44	69	44	69	44	84	51	84	51	84	51	84	51	74	51	84	51	84	51	84	51
7	69	47	69	47	71	47	71	47	71	47	71	47	86	54	86	54	86	54	86	54	76	54	86	54	86	54	86	54
8	71	49	71	49	73	49	73	49	73	49	73	49	88	56	88	56	88	56	88	56	78	56	88	56	88	56	88	56
9	73	51	73	51	75	51	75	51	75	51	75	51	90	58	90	58	90	58	90	58	80	58	90	58	90	58	90	58
10	75	53	75	53	77	53	77	53	77	53	77	53	92	60	92	60	92	60	92	60	82	60	92	60	92	60	92	60
11	77	55	77	55	79	55	79	55	79	55	79	55	94	62	94	62	94	62	94	62	84	62	94	62	94	62	94	62
12	79	57	79	57	81	57	81	57	81	57	81	57	96	64	96	64	96	64	96	64	86	64	96	64	96	64	96	64
13	81	59	81	59	83	59	83	59	83	59	83	59	98	66	98	66	98	66	98	66	88	66	98	66	98	66	98	66
14	83	61	83	61	85	61	85	61	85	61	85	61	100	68	100	68	100	68	100	68	90	68	100	68	100	68	100	68
15	85	63	85	63	87	63	87	63	87	63	87	63	102	70	102	70	102	70	102	70	92	70	102	70	102	70	102	70
16	87	65	87	65	89	65	89	65	89	65	89	65	104	72	104	72	104	72	104	72	94	72	104	72	104	72	104	72
17	89	67	89	67	91	67	91	67	91	67	91	67	106	74	106	74	106	74	106	74	96	74	106	74	106	74	106	74
18	91	69	91	69	93	69	93	69	93	69	93	69	108	76	108	76	108	76	108	76	98	76	108	76	108	76	108	76
19	93	71	93	71	95	71	95	71	95	71	95	71	110	78	110	78	110	78	110	78	100	78	110	78	110	78	110	78
20	95	73	95	73	97	73	97	73	97	73	97	73	112	80	112	80	112	80	112	80	102	80	112	80	112	80	112	80
21	97	75	97	75	99	75	99	75	99	75	99	75	114	82	114	82	114	82	114	82	104	82	114	82	114	82	114	82
22	99	77	99	77	101	77	101	77	101	77	101	77	116	84	116	84	116	84	116	84	106	84	116	84	116	84	116	84
23	101	79	101	79	103	79	103	79	103	79	103	79	118	86	118	86	118	86	118	86	108	86	118	86	118	86	118	86
24	103	81	103	81	105	81	105	81	105	81	105	81	120	88	120	88	120	88	120	88	110	88	120	88	120	88	120	88
25	105	83	105	83	107	83	107	83	107	83	107	83	122	90	122	90	122	90	122	90	112	90	122	90	122	90	122	90
26	107	85	107	85	109	85	109	85	109	85	109	85	124	92	124	92	124	92	124	92	114	92	124	92	124	92	124	92
27	109	87	109	87	111	87	111	87	111	87	111	87	126	94	126	94	126	94	126	94	116	94	126	94	126	94	126	94
28	111	89	111	89	113	89	113	89	113	89	113	89	128	96	128	96	128	96	128	96	118	96	128	96	128	96	128	96
29	113	91	113	91	115	91	115	91	115	91	115	91	130	98	130	98	130	98	130	98	120	98	130	98	130	98	130	98
30	115	93	115	93	117	93	117	93	117	93	117	93	132	100	132	100	132	100	132	100	122	100	132	100	132	100	132	100
Mns	47.6	36.4	50.6	34.5	58.3	36.0	52.7	39.0	53.5	36.8[b]	54.2	38.9	59.1	37.3	62.4	38.3	59.5	43.8	62.0	38.0	54.0	41.7	60.5	41.3	58.8	38.3	62.7	41.8

Date.	New Haven, Conn.		New York.										Pennsylvania.												Asbury Park, N. J.	
			Addison.		Albany.		Binghamton.		Cooperstown.		Indian Lake.		New York.		Clearfield.		Everett.		Harrisbu		Philadelphia.		Scranton.		Wellsboro.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	63	43	71	39	69	39	69	41	69	41	69	41	69	41												
2	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
3	72	47	78	43	76	43	76	43	76	43	76	43	76	43												
4	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
5	72	47	78	43	76	43	76	43	76	43	76	43	76	43												
6	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
7	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
8	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
9	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
10	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
11	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
12	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
13	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
14	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
15	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
16	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
17	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
18	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
19	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
20	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
21	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
22	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
23	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
24	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
25	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
26	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
27	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
28	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
29	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
30	69	47	78	43	76	43	76	43	76	43	76	43	76	43												
Mns	60.7	42.3	66.0	38.6	60.1	41.9	60.3	38.7	54.9	36.2	57.1	31.2	62.1	45.8			66.1	39.1	65.8	45.6	66.3	47.5	62.6	41.4	64.6	36.3	56.6	43.3

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 1*—Continued.

Date.	New Jersey.								Martinsburg, W. Va.[1]		Maryland.								Washington, D. C.		Millsboro, Del.		Virginia.					
	Atlantic City.		Highlstown.		Newton.		Phillipsburg.				Baltimore.		Darlington.		Frederick.		Westernport.						Culpeper.		Fredericksburg.		Staunton.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	56	43	67	37	68	39	66	42	67	50	68	54	69	46	70	52	71	42	72	52	67	46	69	51	74	53	72	52
2...	58	45	76	36	77	33	77	36	75	41	71	51	74	41	75	43	78	35	76	52	75	45	74	48	78	50	73	48
3...	50	46	68	44	65	36	62	42	62	41	60	52	69	44	62	50	74	46	57	51	58	44	63	51	73	51	58	50
4...	60	47	62	46	57	43	61	46	71	50	69	52	70	46	69	51	71	44	68	51	74	48	63	51	67	50	73	52
5...	67	49	82	51	83	49	84	52	83	50	78	56	79	54	84	54	87	46	86	56	86	54	85	52	89	50	84	52
6...	58	51	81	49	78	56	79	50	79	51	77	59	75	54	78	60	76	57	76	55	83	59	78	52	80	63	74	58
7...	56	38	63	41	69	34	50	36	49	43	59	41	67	38	60	40	62	36	56	41	59	41	69	44	73	43	58	41
8...	54	36	50	34	50	31	54	35	61	35	62	40	59	35	62	34	61	34	62	38	60	36	65	29	68	33	68	36
9...	55	41	60	33	58	32	64	36	75	37	77	48	75	38	76	51	74	45	78	42	70	32	79	40	81	38	74	43
10...	62	41	62	36	62	36	61	41	72	41	70	47	68	41	72	42	70	31	71	45	70	41	73	40	73	46	74	35
11...	52	43	68	32	62	32	69	34	79	39	66	46	66	38	77	39	85	35	75	42	67	35	77	38	79	40	76	43
12...	53	43	58	42	64	35	57	40	58	41	60	48	55	38	70	47	78	52	71	44	66	42	71	49	74	48	57	56
13...	48	40	61	31	62	25	62	30	65	36	58	41	60	36	64	36	68	32	63	40	54	36	62	40	35	42	64	46
14...	56	38	73	30	73	28	73	32	78	35	72	42	71	32	78	35	80	31	75	37	73	28	77	34	77	35	78	38
15...	60	49	83	43	80	42	83	44	84	36	83	50	79	45	84	47	85	40	83	51	84	45	82	43	84	46	77	46
16...	62	45	72	46	.....	46	64	43	76	45	70	46	69	45	74	53	78	48	70	47	70	47	82	54	78	55	80	52
17...	51	45	49	41	64	44	51	39	52	41	62	44	57	41	60	42	61	41	64	44	60	46	62	44	62	46	52	42
18...	53	45	65	46	68	45	64	50	74	41	67	58	67	55	73	55	66	41	75	60	70	54	71	51	76	57	68	43
19...	55	46	60	44	68	54	59	41	47	42	60	47	62	46	62	41	57	37	62	43	68	48	62	43	70	45	52	38
20...	54	45	61	34	60	33	61	34	53	37	59	44	59	38	53	36	45	38	57	40	64	39	57	36	60	37	54	36
21...	54	45	60	43	56	.....	59	41	53	40	52	44	53	39	52	41	48	39	51	44	53	41	51	45	53	44	52	40
22...	66	45	74	38	73	37	72	41	79	39	70	49	70	45	69	41	70	34	69	45	72	44	79	43	73	44	68	31
23...	59	52	77	43	72	38	78	42	70	43	72	55	73	45	72	44	58	43	76	52	78	50	72	48	75	50	68	42
24...	58	53	65	53	62	51	58	52	61	48	62	58	69	56	64	50	58	41	66	56	73	56	65	50	71	58	60	45
25...	58	51	74	51	68	47	75	51	64	45	69	56	69	56	68	49	58	40	69	52	71	51	63	50	69	49	60	39
26...	56	50	70	55	65	55	67	48	63	43	61	50	60	50	61	45	60	40	59	47	66	48	60	40	60	42	56	33
27...	58	49	70	41	67	41	67	43	68	43	63	48	63	42	64	41	61	42	62	43	67	38	61	41	62	40	50	38
28...	60	45	60	44	63	40	60	42	66	44	60	48	60	42	64	42	65	35	62	41	62	42	64	41	70	43	66	35
29...	54	41	55	32	46	30	49	34	66	41	66	45	60	36	64	37	73	42	65	37	65	32	66	36	67	36	69	38
30...	66	51	81	45	79	41	82	44	91	45	92	56	89	36	91	49	88	43	92	57	86	47	91	56	93	58	90	49
31...																												
Mns	57.0	45.3	66.9	41.4	66.2[2]	39.8[2]	65.6	41.4	68.0	42.1	67.2	49.2	67.2	43.3	69.2	44.9	68.9	40.3	68.9	46.9	69.0	44.0	69.8	44.4	72.5	46.4	67.0	43.2

Climatological Data for April, 1910.

DISTRICT No. 2, SOUTH ATLANTIC AND EAST GULF STATES.

CHARLES F. VON HERRMANN, District Editor.

GENERAL SUMMARY.

Greater diversity in the meteorological elements than usual prevailed throughout the district during the month of April, 1910. In Virginia the rainfall was considerably above the normal, while in other States there was a general deficiency which was most pronounced in Florida. In North Carolina and Alabama severe local storms with the force of tornadoes occurred on the 16th and 17th in the southeast quadrant of a general barometric depression central in the upper Mississippi Valley. In South Carolina the month was among the warmest Aprils on record, although it was not quite so warm as the same month in 1896, 1908, and 1909. In all the States touching the Gulf both temperature and precipitation were below the normal. The most noteworthy feature of the weather for the month was the snowstorm on the early morning of April 25. Snow fell to a depth of from 2 to 4 inches in northern Alabama and Georgia, and traces even to the southern border of both States. The fall of snow caused considerable astonishment in such towns as Selma, Ala., and Americus, Ga., where snow had never before occurred in April within the memory of man. A trace of snow occurred also at Pensacola, Fla., an event unique in the history of that station. From reliable newspaper records it appears that snow occurred as late as April 14 in the Gulf States in 1864, and in North Carolina about the same date in 1849.

Another quite unusual event was the occurrence of frost as late as April 26 in the States bordering the Gulf. On the mornings of both the 25th and 26th the temperature fell to freezing or below in all States in the district. While the temperatures registered were not the lowest on record for the entire month of April they were unprecedented for so late a date in that month. Heavy to killing frosts were reported at a large number of places throughout the district, especially on the mornings of the 25th and 26th, which caused much damage to gardens, to truck crops, and to cotton, but only slightly injured the fruit crop. Throughout central Georgia, Alabama, and Mississippi it was found necessary to replant a large portion of the cotton crop.

The temperature was almost continuously above normal during the first half of April, except during a brief period of cooler weather 6th to 8th, but from the 16th to the close of the month the temperature was decidedly below the normal, culminating on the 25th and 26th in daily deficiencies of from 18° to 28°. During the first half of April the weather was influenced by several moderate areas of high atmospheric pressure, while after the 15th the pressure was predominatingly low. On the 1st the barometer was highest off the coast of North Carolina and also over Mississippi, and the highest atmospheric pressure for the month occurred on that date in all States in the district. The maximum was 30.30 inches at Lynchburg, Va. The district came under the influence of a relatively large number of low-pressure areas, although many were not very well defined. The showers of the 5th and 6th accompanied a marked disturbance that took the usual course across the Lake region with a dip southward to the vicinity of Chicago on the 5th. The rains of the 11th to 13th, however, accompanied ill-defined depressions central over Arkansas and Tennessee on the morning of the 12th which moved to the Georgia coast on the 13th, the pressure meanwhile remaining high both north over the Lakes and south over Florida. The rains of the 16th to 18th were the heaviest and most general and accompanied a relatively moderate barometric depression that was central over Lake Superior on the morning of the 17th. Although so distant, the conditions seem to have been favorable for tornadoes in the southeast quadrant, such as occurred in the district. On the morning of the 18th the storm was central between Chicago and Cincinnati, and on the 19th between Detroit and Buffalo; on this date the lowest barometric pressure for the month was registered, namely, 29.66 inches at Richmond, Va. On the 20th the storm again increased in force and apparently moved southward over western Pennsylvania to eastern Virginia; meanwhile another marked disturbance had moved southeastward to the lower Lakes by the 23d. On the 24th secondary depressions formed over northern Alabama and in western North Carolina, which moved eastward on the 25th, drawing in behind them the area of cold, moist air in the central valley, and causing snow in northern Alabama and Georgia. Another depression formed over eastern Tennessee and western North Carolina on the 27th, and it was not until higher atmospheric pressure came in from the west on the 28th that the sky cleared, and the weather thereafter became rapidly warmer. In the northern portion of the district the 30th was the warmest day of the month.

TEMPERATURE.

The Savannah River formed quite closely the dividing line between the regions having the temperature above and below the normal during April. In North and South Carolina and in Virginia, as a rule, the temperature at nearly all stations was above the normal, the State departures for North Carolina and Virginia exceeding +2.5°. In the central-northern and eastern portions of North Carolina the departures exceeded 4° at a few points, but the average excess for the States named was about 2° A slight excess in temperature was also noted in northeastern Florida and the adjoining coast region of Georgia and in northern Georgia. Elsewhere throughout the district, that is in most of Georgia, Florida, Alabama, and the Mississippi area, the temperature was moderately below the normal, the deficiency in most cases not exceeding 1° or 2°. This deficiency was largely the result of very cool weather during the last half of the month. The regions of greatest deficiency are found on the east coast of Florida, in the vicinity of Jupiter, and in the lower Chattahoochee Basin. The State means averaged about 1° below normal in all the Gulf States.

The range in monthly mean temperatures for the district was exactly 20°, namely, from 54.2° at Lexington, Va., to 74.2° at Key West, Fla. This range naturally diminishes toward summer as the temperature becomes more uniformly high. The highest monthly mean in Virginia was 60.2° at Petersburg and Hampton; in North Carolina the monthly means ranged from 63.9° at Kingston to 57.2° at Mount Airy; in South Carolina, from 67.0° at Beaufort to 59.6° at Clemson College; in Georgia and Florida the range was somewhat greater, in the former State from 67.4° at St. Marys to 56.5° at Diamond, and in the latter, from 74.2° at Key West to 62.4° at Newport. Lastly, in Alabama the highest monthly mean was 66.7° at Mobile, and lowest, 57.6°, at Oneonta, in the Mississippi area, 68.4° at Biloxi and 59.6° at Okolone.

The month opened with the temperature from 10° to 15° above the daily normal. In several States the highest temperature for the month was recorded during this period of warmth, the maximum exceeding 90° at many places. In North Carolina 93° was registered on the 4th at Fayetteville; in South Carolina, 95° on the 1st at Florence, and on the 4th at Waterloo; in Georgia, 94° on the 4th at Millen; and in Alabama, 91° at Lucy. A brief period of cooler weather followed from about the 6th to 8th, with light frost at several places, especially on the morning of the 8th, which caused practically no damage, except to tender unprotected vegetation in low places. The temperature then rose above normal and the weather remained warm until about the 16th. During this period maximum temperatures above 90° were again recorded at several places. In

Georgia 94° was registered at Bainbridge and Quitman on the 10th; in Florida, 95° at Fort Meade and Huntington on the 15th; and in Mississippi, 92° at Hattiesburg on the 13th.

A marked and rapid decline in temperature then took place, the cold weather continuing to near the close of the month, and culminating on the mornings of the 25th and 26th in temperature below all previous records for so late in April. The following are extracts from the reports of Weather Bureau officials:

North Carolina.—Freezing temperatures were recorded at many places in the western portion of the section on the 25th and 26th, but owing to the cloudy, windy weather and slowness in clearing only light frost formed except at a few places. While fruit was damaged to some extent in western counties and trucking interests were somewhat adversely affected in the central-southern portion of the State, the damage in the section lying east of the mountains as a whole was comparatively slight.—*Lee A. Denson, Section Director.*

Georgia.—The lowest temperatures touched the freezing point on the morning of the 26th, even to the southern boundary of the State. The previous latest recorded date for the last killing frost in spring is April 15, 1907, for the southern section, and April 24, 1893, for the northern portion of the State. At Atlanta the lowest temperature heretofore recorded during the last decade in April was 37° on April 21, 1901; the minimum this month, however, was 31.9° on the morning of the 25th. In the south-central portion of the State the sky was clear on the morning of the 26th and heavy frost did much damage to gardens, to truck crops, especially melons, and to cotton; fruit was not injured. The weather remained cloudy and windy in the northern half of the State, preventing frost.—*Wesley W. Reed, Assistant Observer.*

Florida.—The cold weather during the last decade of April was unusual, and previous records of low temperature at so late a date were broken at many stations. Light to heavy frost formed over northern counties on the 26th, and light frost in some central counties on the same date. The temperature was about freezing on the morning of the 26th in portions of extreme northern counties. The damage to crops was small.—*W. A. Mitchell, Section Director.*

Alabama.—Throughout this section the minimum temperatures ranged very low from the 24th to the 26th. On the 25th freezing weather occurred over much the larger portion of the State, extending as far southeast as the Florida boundary line. The 26th was also very cold, many places in different parts of the State reporting freezing temperatures. Lower temperatures have occurred previously in April, but at many places the minima on the 25th and 26th were the lowest on record for the third decade in April. At Montgomery the previous lowest temperature registered during the last decade was 41° on April 22, 1901, this month the record was 34° on the 25th. Considerable damage was done to crops, in some cases necessitating replanting.—*P. H. Smyth, Section Director.*

Mississippi area.—The temperature was much below the normal during practically the entire latter half of the month. The culmination of the cold spell came on the 25th, when a damaging freeze covered almost the entire State, exclusive of the counties along the Gulf. This is without parallel in the records of the Weather Bureau so late in the season. Fortunately the damage was lessened by cloudy weather which prevented the formation of frost. However, on the following day heavy frost formed over the northern half of the State and light frost extended to the coast.—*James H. Scott.*

The lowest temperatures for the month in each State were: Virginia, 28° at Hot Springs and Saxe; North Carolina, 25° at Settle; South Carolina, 32° at Aiken; Georgia, 29° at Diamond and La Fayette; Florida, 31° at Fenholloway; Alabama, 26° at Madison; and Mississippi area, 29° at Hazlehurst. Warmer weather set in rapidly at the close of April, especially in the northern portion of the district, and the temperature again rose above 90° on the 30th in North Carolina and Virginia.

PRECIPITATION.

The normal precipitation for April in the Gulf States varies from about 4.40 inches in the Mississippi area and Alabama to 2.50 inches in Florida, while in the States bordering the Atlantic it is uniformly about 3.50 inches. During the current month there was an average deficiency throughout the district of slightly over half an inch. However, there was a decided excess of precipitation in Virginia and general deficiencies in all other States, reaching a maximum in South Carolina, Florida, and the Mississippi area, the averages in those States being respectively 1.63, 1.18, and 1.48 inch below the normals. In Virginia the average excess was 1.63 inch. The region of maximum rainfall of from 6 to over 8 inches extended from Richmond, Va., south to Weldon and Louisburg, N. C. The largest monthly total was 9.68 inches at Collaville, Va. The principal feature was the excessive rainfall on the 17-18th which measured nearly 6 inches at many places within 50 miles north and south of Richmond. At Richmond the total 24-hourly fall was 5.33 inches, of which 2 inches fell in less than 2 hours. The largest monthly total in North Carolina was 7.88 inches at Weldon.

A second region of maximum rainfall is found in the lower basin of the Chattahoochee River, including southwestern Georgia, the central-southern counties of Alabama east of the Escambia River, and extreme western Florida, where the amounts ranged from 5 to over 7 inches. The largest monthly totals in this section were Cuthbert, Ga., 7.03 inches; Greenville, Ala., 7.53 inches; and De Funiak Springs, Fla., 6.30 inches.

Elsewhere throughout the district the rainfall averaged less than 4 inches, and over most of South Carolina, southeastern Georgia, and Florida, it was less than 2 inches. The deficiency in rainfall was most marked in Florida. Over the peninsula no places received as much as 2 inches, and generally the monthly totals were under 1 inch. At the close of the month severe drought prevailed and small streams were drying up. The least total monthly rainfall for the district was 0.03 inch at Key West, Fla. The following statement by Mr. C. J. Doherty, official in charge of the local office, Weather Bureau, at Key West is of interest:

The feature of the weather for the month was the light rainfall; the total amount was only 0.03 inch, or 1.20 inch below the normal for 40 years. From November 1, 1909, to April 30, 1910, the rainfall was 3.19 inches, which is 8 inches below the average for the period and the smallest amount for 6 consecutive months on record. From March 2 to April 25 (59 days) only 0.03 inch of rain fell. During the hurricane of October, 1909, many cisterns were destroyed and as the rainfall has been extremely light since that date the scarcity of water is becoming quite serious.

In extreme eastern North Carolina the rainfall was also very small. At Hatteras the total amount was only 0.67 inch, which is the smallest April rainfall during the past 40 years.

Scattered showers occurred during the early part of April culminating in a period of general but moderate rains on the 5–6th. During the middle of the month rains occurred in distinct periods centering about the 12–13th and 16–17th. During the last decade irregularly distributed rains fell from the 23d to the 28th. The rainfall was excessive in the Gulf States on the 16th to 17th and farther north on the 17th to 18th; in the Mississippi area 6 stations reported amounts exceeding 2.50 inches in 24 hours on the 16th, with the maximum fall of 5.35 inches at Monticello; in Alabama 14 stations received excessive rains, the maximum being 6.47 inches at Greenville, all of which fell in 3 hours on the 16th; in Georgia excessive rains occurred at 21 places with the largest 24-hourly fall 5.20 inches at Cuthbert. The rainfall did not become excessive at any point in South Carolina. Large amounts were received on the 17th or 17th to 18th at 6 stations in North Carolina and at 5 in Virginia (largest, 6.10 inches at Collaville, Va.).

Probably the most unique feature of the weather for the month was the snowstorm on the early morning of April 25, 1910. Snow is an extremely rare occurrence in any of the Gulf States even in March and there is no authentic record of a fall of snow in April as far south as the 32d parallel. The snowstorm of April 25, 1910, was most intense in northern Georgia and, where the snow did not melt where it fell, the ground was covered to a depth of from 1 to 4 inches. The largest amounts in northern Georgia were Diamond, 4.0 inches; Ramsey, 3.0; Lost Mountain, 2.5; La Fayette, 2.5; and Atlanta, 1.5 inches. Traces of snow fell as far south as Lumpkin and Americus, Ga. Light snow was quite general also in Alabama and extended into the southern portion. The largest amount was 1.5 inch at Tuscaloosa. The largest amount in the Mississippi area was 0.2 inch at Louisville. It has been mentioned that a trace of snow fell at Pensacola, Fla., latitude 30° 25′ north. At many places the precipitation on the morning of the 25th took the form of sleet.

SEVERE LOCAL STORMS.

Thunderstorms were frequent during the month, especially on the 12th,13th, 16th, 17th, and 18th, and in a few cases were accompanied by destructive hail and high winds. The following descriptions of severe storms that occurred during the month are of interest:

North Carolina.—A tornado developed in Robeson County, about 4 p. m. on the 17th, passing from southwest to northeast a short distance west of Lumberton. The cloud was reported to have been very dark, of funnel shape, and the movements of the débris showed a whirling motion of the wind. It was first observed 5 miles west-southwest of Lumberton where 2 buildings were destroyed. The main body of the storm then lifted for 2 miles when the funnel again descended to the earth and demolished several buildings and killed one person. From this point the disturbance cleared a path through the forest for a distance of a mile and a half, with a width of track ranging from 25 to 100 yards. Then it lifted for 5 miles, finally lowering again, destroying a farm house and painfully, though not seriously, injuring 6 persons. The observer states that "everything in its path was literally twisted to pieces. Green trees 24 to 36 inches in diameter were twisted off as though rotten wood."—*Lee A. Denson, Section Director.*

Alabama.—Destructive tornadoes occurred in the northwest portion of Monroe County, and in the western portions of Butler County on April 16. The greatest destruction seems to have been done in and near Pineville, and near Awin and Bolling. The total damage to property is estimated at about $10,000. Three churches and several buildings were damaged or destroyed at Pineville. Several persons were injured but no one was killed. On April 26 a destructive storm occurred near Roba, in the extreme southwestern portion of Macon County. Trees were uprooted and fences blown down.—*P. H. Smyth, Section Director.*

RIVER CONDITIONS.

Owing to unusually dry weather during March the rivers in the district were very low at the beginning of April. No marked rise occurred until after the heavy rains of April 16 to 18. Flood stages were not attained in any of the rivers of Virginia. The Roanoke River in North Carolina remained at low stages until the 17th when excessive rains over the lower watershed caused a very rapid rise at Weldon, the stage increasing 19 feet within 24 hours. The highest stage was 36 feet on the 19th (flood stage, 30 feet). The Tar River was low until the 13th; a rise to 25.8 feet took place at Tarboro on the 23d, and to 17.0 feet at Greenville on the 24th and 25th. There was considerable damage by overflow in the main tributaries of the upper Tar. The Cape Fear River remained low until the 17th when heavy rains over the eastern portion of the watershed caused a rise to 27.4 feet at Fayetteville on the 19th. This was followed by a quick fall to 5.5 feet on the 25th. Special warnings were issued by the official in charge of the Weather Bureau at Raleigh, N. C., on the 17th, and supplementary warnings for the Tar River on the 19th which were justified. The value of stock and property saved by the warnings is estimated at $40,000. The actual loss by the overflow, mainly in the Tar River and tributaries, was about $50,000.

As a result of very light precipitation in South Carolina both in March and April the run-off in the rivers was the smallest in many years. Flood stages were not reached at any point and the mean stages for April were very low. Mr. R. Q. Grant, Local Forecaster at Charleston, S. C., gives the following information: The stage of the Pedee River at Cheraw, S. C., has been recorded for 18 years and gives a normal height of 7.2 feet for April. For the current month the mean stage was but 3.1 feet; this was surpassed only once, namely, in April, 1893, when the mean stage was but 2.8 feet. Smiths Mills, also on the Pedee, reported an average stage for the month of 3.0 feet, Effingham, on Lynch River, during April, 1910, was 4.0 feet; this also has been surpassed only once before during the past 18 years by a stage of 3.7 feet for April, 1893. At Kingstree, on the Black River, and at Conway, on the Waccamaw, the mean stages for April were the lowest on record.

Owing to rather heavy rains in Georgia on the 17th warnings were issued by the Weather Bureau officials at Macon and Atlanta for higher stages in the Ocmulgee, Oconee, and Chattahoochee rivers which were justified, but no damage resulted. A stage of 16.1 feet was reached at Macon and 15.7 feet at Milledgeville (flood stages, respectively, 18 and 25 feet); the Ocmulgee reached a stage of 11.7 feet at Hawkinsville on the 23d and 11.5 feet at Abbeville on the 25th. The Chattahoochee River rose 19.8 feet at Eufaula from the 16th to the 17th and 18.6 feet at Alaga from the 17th to the 18th, but flood stages were not attained. River conditions in Alabama and Mississippi present no features of special interest as flood stages were not approached at any point.

MISCELLANEOUS PHENOMENA.

The prevailing winds were from the southwest in all the Atlantic States, from the northwest in Alabama, and from the south in Mississippi. The wind movement was greater than in March, but very few high winds were reported. The average wind movement for the month exceeded 10 miles an hour at the following places: Norfolk, Va., 10.3 miles; Hatteras, N. C., 15.8; Charleston, S. C., 11.0; Savannah, Ga., 13.0; Atlanta, Ga., 12.7; Jacksonville, Fla., 10.4; Jupiter, Fla., 10.8; and Pensacola, 14.3 Gales of 40 miles or more occurred at only 2 points, viz, Norfolk, 41 miles on the 6th; Pensacola, 56 miles from the southwest on the 24th.

The amount of sunshine was about normal in most of the Gulf States, except that there was a considerable excess in Florida. There was less than the usual amount of sunshine in North Carolina and Virginia. The average number of clear days ranged from 20 in Florida to 13 in Virginia, the number of cloudy days from 2 in Florida to about 6 in the remaining portions of the district. The number of days with appreciable rainfall averaged about 5 in the Gulf States, but increased to 10 in North Carolina and Virginia. Fog was observed on very few dates. Frost was reported at a large number of stations chiefly on the 8th, 9th, 19th to 22d, inclusive, and 24th to 26th.

TABLE 1.—*Climatological data for April, 1910. District No. 2, South Atlantic and east Gulf States.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Virginia.																				
Arvonia	Buckingham	350	6	58.4	+ 3.9	84	16†	38	8†	34	4.79	+ 2.00	2.15	0.0	11	12	15	3	sw.	Rev. Plummer F. Jones
Ashland‖	Hanover	*21	19																	E. L. C. Scott.
Buchanan	Botetourt	*20	6								3.75		1.08	0.0	10	4	10	16	w.	D. D. Boose.
Callaville	Brunswick	250	16	58.6	+ 2.7	87	16	31	8	44	9.68	+ 6.01	6.10	0.0	7	13	13	4	n.	F. M. Gage.
Cape Henry	Princess Anne	20	36	58.2	+ 3.6	89	5	40	29	36	1.59	− 2.33	0.68	0.0	10	12	8	10	sc.	U. S. Weather Bureau.
Catawba	Roanoke	1,760																		State Sanitarium.
Charlottesville	Albemarle	800	21	58.9	+ 3.1	93	30	35	26	37	4.59	+ 1.31	2.02	0.0	13	3	12	15	sw.	Leander McCormick.
Clarksville	Mecklenburg		16								5.39	+ 2.57	1.60	0.0	10					J. Henry Ligon.
Columbia‖	Fluvanna	246	12	57.8		89	30	32	8	45	5.76		2.17	0.0	12	15	8	7	sw.	Chesapeake & Ohio R. R.
Danville	Pittsylvania	413	10								4.66		1.38	0.0	11	14	4	12	sw.	C. G. Watkins.
Diamond Springs	Princess Anne	20		58.8		90	5	35	9	43	2.09		0.65	0.0	8	21	1	8		Virginia Experiment Sta.
Hampton	Elizabeth City	5	27	60.2	+ 4.8	84	30	39	8	28	1.90	− 2.44	0.40	0.0	10	19	6	5	sw.	Hampton Institute.
Hot Springs	Bath	2,195	18	50.9	+ 1.5	78	6	28	27	40	4.12	+ 1.17	1.05	0.0	10	14	7	9		James P. Scott.
Ivor	Southampton	87	1	59.2		88	30	32	8†	46	4.08		1.15	0.0	12					N. & W. Ry., Exp. Farm.
Lassiter	Goochland	100									5.19		2.81	0.0	8	20	6	4		T. J. Davis.
Lexington‖	Rockbridge	1,069	33	54.2	+ 1.2	89	30	30	22	44	5.02	+ 2.07	1.27	0.0	13	16	6	8		Virginia Military Institute.
Lynchburg	Campbell	685	39	57.7	+ 1.9	90	30	37	26	39	5.87	+ 2.69	2.67	0.0	10	8	17	5	nw.	U. S. Weather Bureau.
New Castle	Craig	1,300	1								7.86		1.27	0.0	10					Miss J. L. Martin.
Newport News‖	Warwick	55	7	60.0		86	30	37	14	31	4.38		1.42	0.0	11	11	12	7	sw.	Ernest W. Sniffen.
Norfolk	Norfolk	91	40	60.0	+ 3.5	87	5	42	8	32	2.46	− 1.21	1.05	0.0	10	12	11	7	s.	U. S. Weather Bureau.
Petersburg	Dinwiddie	60	23	60.2	+ 3.6	88	30	35	8	37	8.32	+ 4.81	5.43	0.0	9				sw.	Central State Hospital.
Randolph	Charlotte	334	6								3.00		0.72	0.0	10					W. B. Spencer.
Richmond	Henrico	144	31	58.4	+ 1.2	88	30	35	8	41	8.74	+ 5.29	5.43	0.0	13	6	20	4	s.	U. S. Weather Bureau.
Rocky Mount	Franklin	1,150	16	58.8	+ 0.1	87	30	34	23†	44	3.47	+ 0.03	1.62	0.0	9	12	0	18	nw.	G. W. B. Hale.
Saxe	Charlotte	350	7	59.2		89	30	28	8	53	5.35		2.00	0.0	11	18	5	7	ne.	State Experiment Farm.
Spottsville (near)	Surry	15	22	58.4	+ 2.8	88	5	31	8†	47	5.14	+ 1.08	1.20	0.0	11	11	7	12	sw.	B. W. Jones.
Williamsburg	James City	70	19	59.2	+ 2.9	88	30	34	14	42	7.10	+ 3.17	3.28	0.0	12	15	10	5	sw.	Eastern State Hospital.
North Carolina.																				
Beaufort	Carteret	10	8	63.6		76	25	45	22	27	1.19		0.65	0.0	7	22	5	3	sw.	H. D. Aller.
Belhaven	Beaufort	4	1	62.2		92	30	35	8†	37	2.84		1.28	0.0	8	20	7	3	s.	W. S. Hopkins.
Brewers	Wilkes	1,950	13	58.3	+ 4.3	84	4	34	19†	42	3.39	− 0.84	0.50	T.	14	8	16	6	w.	W. L. Brewer.
Caroleen	Rutherford	806	10	60.6	+ 2.3	91	30	34	9†	50	1.46	− 2.51	1.10	T.	4	11	15	4	sw.	S. B. Tanner.
Chalybeate Springs	Harnett	500	4	60.4		90	30	28	8	53	2.94		0.89	0.0	9	18	8	4	s.	J. A. Smith.
Chapel Hill	Orange	500	52	60.8	+ 2.0	88	30	34	26	46	5.19	+ 1.34	2.89	0.0	10	14	14	2	sw.	Prof. A. H. Patterson.
Charlotte	Mecklenburg	773	34	61.3	+ 2.1	87	30	34	26	33	2.34	− 1.10	1.29	0.0	10	11	11	8	sw.	U. S. Weather Bureau.
Chimney Rock	Rutherford	1,150	....	60.8		92	30	29	26	45	1.69		1.19	0.0	8	15	7	8	nw.	Dr. L. B. Morse.
Clinton	Sampson	156	3	63.1[c]		91	4	35[c]	8	43[c]	2.65		0.92	0.0	10	13	16	1	s.	W. T. Boyette.
Durham (near)	Durham	406	1								4.80		1.57	0.0	10					Supt. Durham Water Co.
Eagletown	Northampton	66	5	60.0		88	30	35	8	41	4.64		1.40	0.0	12	18	8	4	sw.	J. T. Elliott.
Edenton	Chowan	30	16	61.9[a]	+ 4.0	92	16	37	9†	49[a]	4.50	+ 1.24	1.40	0.0	7	12	11	7	s.	E. R. Conger.
Fayetteville	Cumberland	170	23	63.3	+ 3.0	93	4	35	26	40	4.13	+ 0.37	2.88	0.0	10					Frank Glover.
Goldsboro	Wayne	102	40	61.6	+ 1.2	90	5	33	14	47	4.49	+ 0.63	1.78	0.0	11				w.	Mrs. N. B. Taylor.
Graham	Alamance	656	8								4.12		1.38	0.0	12					Dr. W. R. Goley.
Greensboro	Guilford	843	29	60.0	+ 2.2	90	30	32	26	46	4.00	+ 0.68	1.25	0.0	11					A. R. Horry.
Greenville	Pitt	75	17								3.23	− 0.57	1.11	0.0	10					C. V. York.
Hatteras	Dare	11	36	62.3	+ 4.3	74	4	48	8	21	0.67	− 3.73	0.31	0.0	6	19	8	3	sw.	U. S. Weather Bureau.
Henderson	Vance	490	17	59.4	+ 2.9	85	5	36	26	33	6.96	+ 2.91	3.75	0.0	10	6	20	4	sw.	Enoch Powell.
Kinston	Lenoir	46	12	63.9	+ 4.9	91	4†	35	8	44	2.90	− 0.47	0.73	0.0	8	15	5	10	sw.	D. T. Edwards.
Lenoir	Caldwell	1,186	37	57.5	+ 1.3	91	30	31	9†	50	2.87	− 0.69	1.03	0.0	12	26	3	1	s.	G. M. Goforth.
Lexington	Davidson	810	9	58.6		88	4	31	14†	51	2.84	− 1.12	1.76	0.0	7	14	15	1	s.	H. R. Berrier.
Lincolnton	Lincoln	994	5	58.1[b]		88	5	33	10†	50[b]	1.63		1.13	0.0	4	15	0	15	sw.	L. B. Thompson.
Louisburg	Franklin	375	19	60.2	+ 2.5	86	5†	32	8	44	7.16	+ 3.83	4.42	0.0	9	20	4	6	sw.	T. B. Wilder.
Lumberton	Robeson	102	27	62.2	+ 0.9	93	30	34	26	46	2.24	− 1.58	0.79	0.0	9				sw.	B. M. Davis.
Manteo	Dare	12	5	60.2		87	5	39	9	33	2.40		1.30	0.0	6	18	5	7	s.	U. S. Weather Bureau.
Marion	McDowell	1,425	18	59.0	+ 3.0	93	30	30	19	46	2.67	− 1.27	1.23	T.	8	12	13	5	w.	Sgt. Thomas McGuire.
Moncure	Chatham	145	16	60.5	+ 2.5	89	4	29	8	53	3.28	− 0.40	0.82	0.0	11	16	5	9	nw.	B. J. Utley.
Monroe	Union	586	16	60.2	+ 2.3	88	4	32	22†	49	1.08	− 2.37	0.70	0.0	4	13	14	3	w.	T. A. Ashcraft.
Morganton	Burke	1,135	23	59.2	+ 2.2	89	30	33	19	48	1.66	− 2.06	0.73	0.0	9	16	11	3	sw.	H. D. Judd.
Mt. Airy	Surry	1,048	22	57.2	+ 2.3	89	30	33	25	45	3.93	+ 0.76	1.03	0.0	11	15	8	7	ne.	Prof. A. H. Merritt.
Mt. Holly	Gaston	616	13								2.02	− 0.60	1.02	0.0	7					J. W. Holland.
Nashville	Nash	190	6	60.8		90	30	32	8	44	5.28		1.90	0.0	11	9	13	8	s.	J. B. Boddie.
Newbern	Craven	12	28	61.4	+ 1.8	88	30	36	8	41	3.31	− 0.31	1.60	0.0	10				sw.	J. B. Hill.
Pinehurst‖	Moore	650	6	62.2		89	30	34	26	39	1.80		0.50	0.0	4	17	5	8	w.	General Office.
Pittsboro	Chatham	480	19	60.6	+ 3.4	88	30	32	8†	49	4.20	+ 0.59	2.60	0.0	5	20	1	9		B. M. Poe.
Raleigh	Wake	390	39	61.0	+ 2.0	88	30	36	26	31	5.01	+ 1.54	2.63	0.0	13	13	10	7	sw.	U. S. Weather Bureau.
Ramseur	Randolph	442	3	59.6		90	3	26	20	57	5.45		2.12	0.0	9	10	19	1	s.	P. P. Turner.
Randleman	....do	810	5								2.44		1.14	0.0	9					J. R. Walton.
Reidsville	Rockingham	828	11	60.6	+ 5.1	89	30	35	8†	41	4.41	+ 1.54	1.54	0.0	9	13	0	17	sw.	E. M. Redd.
Rockhouse	Macon	3,100	18	53.4		77	30	27	25†	32	3.66		2.43	4.0	12	13	10	7	nw.	Berry C. Hawkins.
Rockingham	Richmond	210	15	61.4[d]	+ 0.3	90	30	34	9	46[d]	2.15	− 1.31	0.83	0.0	5					H. S. Ledbetter.
Roxboro	Person	600	12																	T. C. Bradsher.
Salem	Forsythe	1,000	15	58.8	+ 2.2	88	30	32	25	46	2.76	− 0.21	0.98	0.0	7					Rev. H. E. Rondthaler.
Salisbury	Rowan	760	26	61.2	+ 1.5	90	30	33	26	43	3.97	+ 0.68	1.40	0.0	9	8	12	10	nw.	Miss Thelma Wilkinson.
Saxon	Stokes	900	18	57.8	+ 2.2	89	30	33	8†	46	3.48	+ 0.28	0.93	0.0	9	6	16	8	sw.	R. P. McAnnaly.
Scotland Neck	Halifax	80	6	59.2		85	30	34	8	38	5.65		1.50	0.0	12	11	5	14	s.	J. Y. Savage.
Selma	Johnston	225	20	62.4[b]	+ 3.5	92[b]	5	33[b]	8	48[b]	3.45	− 0.23	1.45	0.0	8					Dr. R. J. Noble.
Settle	Iredell	700	14	58.0	+ 1.2	89	30	25	25	49	2.58	− 0.86	0.75	0.0	6	12	4	14	sw.	C. H. Smith.
Sloan	Duplin	50	17	62.2[d]	+ 1.9	91[d]	4	33[d]	8	45[d]	2.45	− 0.95	0.96	0.0	6					D. M. Sholar.
Snow Hill	Greene	80	5	61.7		91	30	33	8	43	2.27		0.65	0.0	9	16	9	5	s.	Levi J. H. Mewborn.
Southern Pines	Moore	519	20	62.8[c]	+ 1.5	90[c]	30	35[c]	26	36[c]	2.88	− 0.69	1.15	0.0	7	20	6	4	w.	Mrs. P. H. Beck.
Southport	Brunswick	18	55	62.6	+ 0.6	77	11	40	26	30	2.60	− 0.33	1.79	0.0	7	16	7	7	sw.	Mrs. Charles E. Taylor.
Statesville	Iredell	950	22	59.8	+ 3.1	85	4†	32	26	47	2.07	− 1.62	0.66	0.0	8	6	20	4	sw.	D. M. Thompson.
Tarboro	Edgecombe	50	25	62.0	+ 3.0	90	30	35	8	41	5.30	+ 1.81	1.84	0.0	13	15	5	10	sw.	E. V. Zoeller.
Troy	Montgomery	800	1	61.4[a]		87[a]	30	32[a]	26	32[a]	3.40		1.61	0.0	7	20	6	4	sw.	Mrs. O. B. Deaton.
Weldon	Halifax	81	38	60.4	+ 3.1	90	30	35	8	44	7.88	+ 4.47	4.51	0.0	13				s.	H. S. S. Cooper.
Whiteville	Columbus	59	5	61.6		90	4†	31	8	46	2.63		1.18	0.0	8	16	11	3	sw.	Rev. C. C. Smith.
Willard	Pender	51	2	62.6[b]		92[b]	4†	31[b]	8	47[b]	1.55		0.67	0.0	6	18	5	7	s.	J. H. Jeffries.
Wilmington	New Hanover	52	39	63.3	+ 2.9	87	4	40	26	30	1.61	− 1.25	0.53	0.0	7	17	8	5	sw.	U. S. Weather Bureau.
Yanceyville	Caswell	690	....								3.78		1.24	0.0	8	15	0	15	w.	A. Y. Kerr.
South Carolina.																				
Aiken	Aiken	565	26	64.2	+ 1.1	92	30	32	26	39	1.85	− 1.24	1.63	0.0	2	21	9	0	w.	Dr. Huger T. Hall.
Allendale	Barnwell	186	22	65.9	+ 2.1	95	30	35	26	43	1.20	− 1.54	0.55	0.0	4	20	3	7		A. R. Hiers.
Anderson	Anderson	704	9	59.9	− 0.8	88	4	34	23†	39	2.11	− 1.14	1.88	T.	6	15	2	13	w.	H. H. Russell.
Batesburg	Lexington	656	22	60.8	− 0.6	84	4†	35	26	33	1.46	− 1.34	0.91	T.	3	17	4	9	n.	E. J. Hite.
Beaufort	Beaufort	20	24	67.0	+ 1.8	90	1†	42	25	33	3.38	+ 1.18	1.50	0.0	5	20	9	1	sc.	Miss E. G. Rice.
Blackville	Barnwell	296	22	64.8	+ 1.3	93	29	34	25	39	1.24	− 1.86	0.85	0.0	6	16	6	8	sw.	Miss M. E. Lange.
Blairs	Fairfield	293	9								1.42		1.66	0.0	3	14	10	6	s.	John R. Ragsdale.

TABLE 1.—*Climatological data for April, 1910. District No. 2*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
South Carolina—Cont'd.																				
Bowman	Orangeburg	160	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. O. Evans.
Calhoun Falls	Abbeville	508	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18	0	12	nw.	P. J. Pfiefer.
Camden	Kershaw	222	44	.....	.....	.....	.....	.....	.....	.....	0.94	− 2.15	0.58	0.0	6	22	3	5	ne.	W. C. Brown.
Catawba	York	562	5	.....	.....	.....	.....	.....	.....	.....	2.04	.....	1.20	0.0	6	14	8	8	n.	Jas. C. Faris.
Chappells	Newberry	402	5	.....	.....	.....	.....	.....	.....	.....	1.02	.....	0.66	0.0	3	19	5	6	sw.	W. R. Zimmerman.
Charleston	Charleston	48	40	65.4	+ 1.6	89	2	41	26	25	1.00	− 1.99	0.34	0.0	4	16	10	4	sw.	U. S. Weather Bureau.
Cheraw	Chesterfield	144	22	62.6	+ 1.8	91	4†	36	26	43	1.82	− 1.09	0.68	0.0	8	17	7	6	e.	J. H. Powe.
Clemson College	Oconee	850	19	59.6	+ 0.4	84	30	37	8	35	2.16	− 1.34	1.60	0.0	6	18	7	5	s.	Prof. John N. Hook.
Columbia	Richland	351	23	63.6	+ 0.8	91	4	34	26	32	0.78	− 2.08	0.57	0.0	6	8	13	9	sw.	U. S. Weather Bureau.
Conway	Horry	25	18	64.2	+ 2.4	92	30	35	26	42	1.19	− 1.89	0.24	0.0	8	21	1	8	sw.	P. C. Quattlebaum.
Darlington	Darlington	175	15	62.4	.....	93	30	34	7	40	1.93	− 1.68	0.84	0.0	6	15	3	12	sw.	D. C. McCall.
Dillon	Marion	100	6	63.3	+ 2.7	94	4	35	26	43	2.11	− 1.43	0.78	0.0	10	.....	.....	.....	.....	A. E. Rowell.
Effingham	Florence	106	18	.....	.....	.....	.....	.....	.....	.....	1.50	− 2.10	0.75	0.0	3	20	1	7	sw.	H. B. McCall.
Ferguson	Berkeley	51	2	.....	.....	.....	.....	.....	.....	.....	2.07	.....	0.63	0.0	5	22	1	7	s.	Pierre Gaillard.
Florence	Florence	136	22	65.1	+ 2.8	95	1	36	26	47	1.81	− 1.24	0.76	0.0	5	23	1	6	sw.	H. K. Gilbert.
Georgetown	Georgetown	12	17	65.7	+ 2.5	88	1	40	25	30	0.08	− 3.25	0.04	0.0	3	22	0	8	s.	Wm. Alden James.
Greenville	Greenville	989	18	59.8	+ 3.0	87	30	36	26	35	1.56	− 1.92	1.05	0.0	6	20	5	5	sw.	Mrs. S. A. Crittenden.
Greenwood	Greenwood	671	22	62.8	+ 3.0	91	30	35	26	40	2.50	− 0.41	1.87	0.0	5	23	0	7	w.	M. M. Calhoun.
Heath Springs	Lancaster	568	9	63.8[a]	.....	90[a]	5	40[a]	21	34[a]	1.37	.....	0.60	0.0	5	22	5	3	w.	J. A. Weaner.
Jacksonboro	Colleton	13	2	63.4	.....	88	3	35	26	34	1.74	.....	0.60	0.0	5	20	7	3	w.	W. E. Haskell, jr.
Kingstree	Williamsburg	54	22	63.6	+ 0.8	90	1†	39	26†	40	2.09	− 0.86	0.55	0.0	7	17	5	8	sw.	A. O. Matthews.
Liberty	Pickens	900	16	62.4	+ 2.6	89	30	35	8	43	2.17	− 1.80	1.35	T.	6	14	12	4	sw.	Jno. T. Boggs.
Little Mountain	Newberry	711	17	63.5	+ 1.9	89	4	33	26	35	1.08	− 2.49	0.97	0.0	4	17	8	5	w.	Dr. J. M. Sease.
Newberry	...do	502	6	62.4	+ 1.4	91	30	34	26	44	1.92	− 1.26	1.42	T.	8	8	13	9	s.	W. G. Peterson.
Pelzer	Anderson	873	5	.....	.....	.....	.....	.....	.....	.....	2.08	.....	1.84	0.0	4	19	5	6	w.	John M. Ward.
Pinopolis	Berkeley	55	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss E. P. Ravenel.
St. George	Dorchester	109	22	66.1	+ 2.7	90	1†	40	8†	33	2.20	− 0.99	1.20	0.0	4	29	0	1	.....	G. F. Lewis.
St. Matthews	Calhoun	209	22	63.2	+ 0.7	87	1†	38	14†	40	1.82	− 1.68	0.96	0.0	7	26	0	4	.....	J. S. Wannamaker.
Saluda	Saluda	530	8	62.6[c]	.....	91[c]	30	33[c]	26	47[c]	1.37	.....	1.15	T.	4	18	4	7	w.	Alvin Etheridge.
Santuc	Union	512	15	62.0	+ 2.5	91	30	33	26	48	1.76	− 1.68	1.32	0.0	4	9	17	4	w.	E. W. Jeter.
Smith Mills	Williamsburg	62	15	.....	.....	.....	.....	.....	.....	.....	1.12	− 2.52	0.63	0.0	3	17	0	13	.....	W. G. Walker.
Society Hill	Darlington	192	19	63.0	+ 2.6	88	4†	36	25	42	1.92	− 1.02	0.80	0.0	4	16	10	4	sw.	J. J. Lucas.
Spartanburg	Spartanburg	875	19	62.0	+ 2.3	92	30	34	26	48	1.43	− 1.75	1.24	0.0	6	20	0	10	.....	F. P. Robinson.
Summerville	Dorchester	75	13	64.9	+ 2.1	92	3	34	26	41	1.88	− 1.78	0.40	0.0	9	6	24	0	sw.	Miss E. H. Gadsen.
Trenton	Edgefield	620	17	61.6	− 1.3	87	2	33	26	32	2.04	− 3.39	1.70	0.0	4	15	15	0	s.	C. A. Long.
Trial	Berkeley	85	23	63.0	+ 1.4	89	3†	33	25	42	1.39	− 1.29	0.28	0.0	8	8	16	6	w.	Etsell Gaillard.
Walhalla	Oconee	1,061	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	N. L. Fant.
Walterboro	Colleton	69	6	65.1[c]	.....	95[c]	4	33[c]	26	48[c]	2.28	.....	1.03	0.0	7	17	11	2	.....	J. A. Westerberg.
Winnsboro	Fairfield	545	21	62.8	+ 1.8	91	30	35	26	31	1.70	− 2.14	0.70	0.0	3	18	11	1	w.	John W. Seigler.
Winthrop College	York	690	11	63.2	+ 3.2	89	30	34	26	40	2.27	− 0.57	1.46	0.0	8	12	11	7	sw.	E. R. Rivers.
Yemassee	Hampton	23	15	63.8	+ 0.7	91	1†	34	26	41	2.30	− 0.69	0.81	0.0	7	21	1	8	.....	J. G. Hutson.
Georgia.																				
Abbeville	Wilcox	.....	7	.....	.....	.....	.....	.....	.....	.....	2.75	.....	1.75	0.0	5	13	5	12	w.	W. H. Calhoun.
Adairsville	Bartow	772	18	60.8[f]	+ 1.3	87[f]	4	32[d]	24	40[f]	.....	.....	1.79[d]	T.	.....	7[c]	11[c]	7[c]	.....	Dr. J. P. Bowdoin.
Albany	Dougherty	230	25	65.4	− 1.4	93	4	35	26	41	2.79	− 0.70	1.25	0.0	9	23	1	6	nw.	Geo. C. Brosnan.
Allapaha	Berrien	293	21	67.0	+ 0.5	90	2	38	26	38	1.60	− 1.46	1.04	0.0	4	11	15	4	sw.	James T. Austin.
Americus	Sumter	362	27	62.6[c]	− 2.9	87[c]	1†	34[c]	25	40[c]	5.26	+ 1.77	3.25	0.0	7	17[c]	8[c]	2[c]	s.	O. D. Reese.
Athens	Clarke	694	33	60.7	+ 0.7	86	3†	37	26	31	4.20	+ 0.57	2.59	T.	7	14	9	7	w.	C. D. Cox.
Atlanta	Fulton	1,218	45	60.0	− 0.7	84	1	32	25	27	3.15	− 0.92	2.34	1.5	8	11	5	14	w.	U. S. Weather Bureau.
Augusta	Richmond	180	44	63.4	− 0.9	89	4	36	26	37	1.51	− 1.88	1.02	0.0	7	13	10	7	sw.	U. S. Weather Bureau.
Bainbridge	Decatur	119	18	66.1	− 2.2	94	10	34	26	46	3.31	− 0.20	1.25	0.0	5	21	1	8	se.	Mrs. C. O. Wimberley.
Barnesville	Pike	875	2	63.0	.....	87	4	34	26	31	4.73	.....	3.97	T.	6	17	11	2	w.	Prof. T. O. Galloway.
Blakely	Early	300	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ralph M. Hobba.
Brunswick	Glynn	14	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. B. High.
Butler	Taylor	650	8	.....	.....	.....	.....	.....	.....	.....	5.26	.....	4.10	T.	6	24	0	6	sw.	Mrs. Mamie F. Wallace.
Camak	Warren	613	17	61.4	− 1.6	88	4	32	26	39	2.12	− 0.48	1.80	T.	2	17	2	11	.....	J. A. Chapman.
Canton	Cherokee	894	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. M. McAfee.
Carlton	Madison	557	11	.....	.....	.....	.....	.....	.....	.....	2.96	− 0.32	2.20	0.0	4	23	0	7	w.	M. C. Power.
Carrollton	Carroll	.....	13	63.6	+ 2.3	90	14	31	24†	44	3.10	− 1.47	1.20	0.1	8	9	19	2	sw.	J. T. Folk.
Clayton	Rabun	2,100	17	56.9	+ 1.1	84	30	32	19	43	3.15	− 2.66	1.57	T.	6	18	8	4	w.	A. J. Duncan.
Columbus	Muscogee	262	23	63.1	− 1.8	92	12	34	26	36	5.93	+ 2.55	5.00	T.	8	20	3	7	sw.	A. J. Land.
Covington	Newton	800	17	.....	.....	.....	.....	.....	.....	.....	4.79	+ 0.46	2.60	T.	6	17	10	3	e.	Rufus Cruse.
Cuthbert	Randolph	446	11	63.6[a]	− 3.5	90[a]	3†	33[a]	25	40[a]	7.03	.....	5.20	0.0	4	3[c]	18[c]	6[c]	.....	Prof. W. McMichael.
Dahlonega	Lumpkin	1,519	18	59.0	+ 1.0	85	4†	32	24	37	4.01	− 0.34	1.76	T.	8	11	17	2	nw.	Prof. B. P. Gailliard.
Diamond	Gilmer	2,020	20	56.5[a]	− 0.4	84[a]	4	29[a]	24	40[a]	5.11	− 0.09	2.11	4.5	9	11	6	13	.....	R. A. Kimzey.
Douglass	Coffee	500	3	.....	.....	88[i]	2†	39[i]	26	39[i]	.....	.....	.....	0.0	.....	.....	.....	.....	.....	Prof. C. W. Davis.
Dublin	Laurens	452	16	.....	.....	.....	.....	.....	.....	.....	3.08	+ 0.05	1.78	0.0	10	20	3	7	w.	Mrs. M. E. Martin.
Dudley	...do	.....	8	64.8	+ 0.6	90	3†	34	26	41	2.50	− 2.38	1.72	0.0	6	12	18	0	sw.	J. H. M. O. Sullivan.
Eastman	Dodge	361	19	66.4[a]	− 0.2	93[a]	3†	35[a]	26	41[a]	2.00	− 0.67	0.88	0.0	5	14[a]	4[a]	11[a]	w.	Miss A. M. Bohannon.
Eatonton	Putnam	.....	7	61.4[b]	.....	88[b]	30	33[b]	26	44[b]	3.64	.....	2.41	0.0	7	.....	.....	.....	.....	Prof. W. C. Wright.
Elberton	Elbert	710	19	62.7	+ 1.0	88	30	34	26	38	2.57	− 1.10	1.80	0.0	5	22	8	0	w.	H. A. Roebuck.
Experiment	Spalding	946	10	60.9	+ 0.3	85	3†	33	25†	37	3.92	+ 0.84	1.25	T.	7	8	21	1	.....	Martin V. Calvin.
Fort Gaines	Clay	168	23	64.0	− 1.5	90	11†	33	26	43	6.29	+ 3.16	3.80	0.0	4	22	0	8	nw.	Mrs. Eva T. Graham.
Gainesville	Hall	1,254	34	59.4	+ 0.1	82	4	36	26	34	4.39	+ 0.70	2.95	T.	6	20	0	10	w.	W. C. Walker.
Gillsville	...do	1,052	20	60.8	+ 0.5	88	30	35	24	40	2.61	− 0.98	1.25	T.	5	10	13	7	w.	J. W. Casey.
Glennville	Tatnall	.....	5	65.4	.....	90	3	36	26	38	1.38	.....	0.45	0.0	8	15	15	0	w.	Wm. C. Barnard.
Gore	Chattooga	.....	12	59.0	+ 0.8	86	4	31	24	45	3.33	− 0.81	1.25	0.5‖	11	15	5	10	sw.	H. M. Ponder.
Greensboro	Greene	598	8	61.8	.....	87	4	36	26	38	3.56	.....	3.48	T.	2	16	8	6	w.	R. L. Caldwell.
Griffin	Spalding	975	21	60.7	− 1.9	87	3	31	25	35	4.04	+ 0.64	2.10	1.2	7	18	3	9	sw.	V. P. Enloe.
Harrison	Washington	245	12	62.0	− 0.3	89	3†	32	26	42	2.65	− 1.07	1.44	T.	7	24	3	2	nw.	A. W. J. Wood.
Hartwell	Hart	838	2	61.0	.....	88	3†	36	26	41	3.58	.....	1.29	0.0	6	24	0	6	sw.	Dr. W. I. Hailey.
Hawkinsville	Pulaski	235	15	62.7[b]	− 1.5	93[b]	3	32[b]	26	47[b]	2.74	+ 0.52	1.84	0.0	9	15	10	5	nw.	R. H. Wood.
Helena	Telfair	260	3	65.4	.....	91	3	35	26	40	2.66	.....	1.06	T.	9	2	20	8	w.	James D. Smith.
LaFayette	Walker	871	4	58.6	.....	89	10	29	24	44	3.60	.....	1.75	2.0‖	5	7	11	12	nw.	Ralph A. Snow.
Lisbon	Lincoln	.....	4	61.9	.....	89	4†	37	26	44	2.64	.....	2.49	0.0	6	14	5	11	nw.	B. J. DuBose.
Lost Mountain	Cobb	.....	10	61.4	+ 1.7	88	30	32	24†	42	2.31	− 1.08	1.10	2.5	7	5	22	3	w.	A. N. Mayes.
Louisville	Jefferson	259	18	63.6	0.0	88	4	35	26	36	1.88	− 1.44	1.32	0.0	4	15	15	0	.....	J. C. Little.
Lumber City	Telfair	.....	2	.....	.....	.....	.....	.....	.....	.....	1.90	.....	0.56	0.0	8	15	5	10	w.	Walter A. Hilton.
Lumpkin	Stewart	650	17	65.6	+ 0.7	92	11	32	26	41	6.00	+ 2.47	4.15	T.	6	14	13	3	nw.	A. W. Latimer.
Macon	Bibb	370	33	62.4	− 1.6	88	3	36	26	38	3.46	− 0.50	2.68	T.	7	13	8	9	sw.	U. S. Weather Bureau.
Marshallville	Macon	500	18	63.2	− 1.6	90	3†	30	26	45	4.13	− 0.43	3.25	T.	7	11	14	5	e.	E. C. Bryan.
Mauzy	Colquitt	.....	12	66.0	− 0.3	92	4	33	26	41	2.01	− 1.08	0.93	0.0	8	21	5	4	w.	T. J. Hudson.
Milledgeville	Baldwin	276	22	63.2	− 0.4	89	4	37	26	43	3.00	+ 0.34	2.62	0.0	7	20	1	9	nw.	Prof. O. M. Cone.
Millen	Jenkins	158	23	65.0	+ 0.6	94	4	32	26	48	0.90	− 1.58	0.40	0.0	4	19	0	11	sw.	M. G. McComb.
Montezuma	Macon	292	5	.....	.....	.....	.....	.....	.....	.....	3.66	.....	2.08	0.0	7	20	3	7	nw.	W. N. Drewry.
Monticello	Jasper	800	14	62.6	− 0.8	88	3†	34	26	40	4.17	+ 1.05	3.05	0.0	9	24	0	6	.....	Miss Maude C. Penn.
Morgan	Calhoun	337	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. J. Beck.

TABLE 1.—*Climatological data for April, 1910. District No. 2*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	
Georgia—Cont'd.																			
Newnan	Coweta	959	22	60.8	− 0.4	86	3†	31	25	40	5.13	+ 1.48	3.35	0.0	6	22	0	8	e.	Mrs. I. J. Milner.
Oakdale	Fulton	810	10	.....	.....	.....	.....	.....	.....	.....	3.95	− 0.13	2.52	T.	6	14	6	10	nw.	W. R. B. Whittier.
Point Peter	Oglethorpe	1,000	21	60.8	+ 1.3	88	30	36	26	44	3.30	− 0.49	2.50	T.	3	14	9	7	w.	C. M. Witcher.
Poulan	Worth	365	19	64.2	− 0.8	89	4†	32	26	44	2.77	− 0.29	1.17	0.0	6	21	5	4	.....	Dr. J. F. Wilson.
Putnam	Marion	.....	11	63.2	− 0.4	90	4	31	26	40	5.16	+ 1.43	2.65	0.0	4	18	8	4	s.	Mrs. J. M. Collum.
Quitman	Brooks	173	26	65.6	− 1.7	94	10	32	26	47	1.43	− 1.92	0.78	0.0	3	22	1	7	nw.	A. B. Jones.
Ramsey	Murray	1,363	17	60.1	+ 0.9	84	4	34	24	36	4.25	+ 0.40	1.71	3.0	11	10	10	10	n.	D. E. Humphreys.
Resaca	Gordon	657	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	D. A. Norton.
Rome	Floyd	576	55	60.3	− 1.1	88	4	33	24	43	2.76	− 1.44	1.38	T.	9	17	6	7	w.	W. M. Towers.
St. George	Charlton	.....	4	66.3	.....	90	2†	32	26	48	1.09	.....	0.60	0.0	4	22	7	1	s.	A. N. Lund.
St. Marys	Camden	20	19	67.4	+ 0.5	93	1	36	26	37	1.18	− 1.63	0.96	0.0	3	14	13	3	se.	David C. Sterling.
Savannah	Chatham	65	60	65.7	− 0.6	90	3	38	26	28	1.37	− 1.24	0.73	0.0	6	17	8	5	w.	U. S. Weather Bureau.
Statesboro	Bulloch	253	10	66.5	+ 1.8	94	3	33	26	41	1.47	− 1.65	0.76	0.0	7	12	18	0	.....	J. C. Cromley.
Talbotton	Talbot	750	17	63.6	+ 1.3	89	1†	32	26	39	5.48	+ 1.25	2.50	T.	10	15	3	12	sw.	Dr. E. L. Bardwell.
Tallapoosa	Haralson	1,150	18	64.0	.....	88	6	39	26	47	.....	.....	.....	0.0	.....	20	0	10	.....	R. M. Strickland.
Thomasville	Thomas	273	27	64.8	− 2.2	89	3	32	26	39	1.72	− 1.70	0.82	0.0	6	18	8	4	sw.	U. S. Weather Bureau.
Toccoa	Stephens	1,050	25	59.2	− 1.0	87	30	33	24	36	2.64	− 2.14	1.90	0.0	8	22	0	8	w.	E. A. Newton.
Valdosta	Lowndes	219	5	66.2	.....	92	2†	30	26	46	0.77	.....	0.55	0.0	2	19	0	11	e.	Miss Annie L. Twitty.
Valona	McIntosh	10	10	65.7	+ 2.2	91	2	38	26	41	2.53	− 0.02	1.40	0.0	4	28	2	0	sw.	J. M. Atwood.
Washington	Wilkes	630	23	62.6	− 0.7	89	1†	35	26	37	2.12	− 1.22	2.12	0.0	1	14	8	8	sw.	Miss Ella B. Smith.
Waycross	Ware	131	21	66.0	− 1.1	91	2	33	26	41	1.37	− 0.89	0.72	0.0	8	23	1	6	sw.	Thomas Sasser.
Waynesboro	Burke	86	19	63.8	− 0.2	90	4	32	26	38	1.27	− 1.12	1.10	0.0	4	22	4	4	nw.	Mrs. H. W. Blount.
West Point	Troup	620	22	62.0	− 1.4	87	2†	34	26	40	3.42	− 0.20	2.10	T.	9	21	0	9	nw.	E. N. Dunn.
Woodbury	Meriwether	641	10	57.9	− 0.9	82	4	32	25	40	5.55	+ 1.70	3.96	T.	6	13	6	11	sw.	G. A. Wright.
Florida.																				
Apalachicola	Franklin	24	6	66.0	.....	80	9	44	26	25	2.14	.....	1.09	0.0	5	20	8	2	se.	G. H. Whiteside.
Arcadia	De Soto	61	9	69.3	.....	94	15†	40	22	46	0.24	.....	0.13	0.0	2	28	1	1	w.	C. S. Bushnell.
Archer	Alachua	92	24	68.3	+ 0.1	92	3	38	26	42	1.73	− 0.72	0.75	0.0	3	19	9	2	.....	R. B. Hodgson.
Avon Park	De Soto	150	12	70.6	− 1.8	93	15	45	21†	40	0.61	− 1.28	0.50	0.0	3	9	12	9	e.	O. R. Thacher.
Bartow	Polk	115	14	69.7	− 1.6	93	15†	40	21	44	0.66	− 1.20	0.36	0.0	4	16	10	4	nw.	Wm. Hood.
Blountstown	Calhoun	.....	2	.....	.....	.....	.....	.....	.....	.....	2.06	.....	1.60	0.0	3	24	2	4	s.	C. L. Hobbs.
Bonifay	Holmes	111	8	65.4	.....	89	14	36	26	38	5.00	.....	2.90	0.0	4	15	11	4	nw.	Wm. Rush.
Brooksville	Hernando	126	16	68.6[c]	.....	93[c]	3†	42[c]	26	38[c]	0.43	− 1.89	0.24	0.0	3	.....	.....	.....	w.	C. C. Peck.
Carrabelle	Franklin	10	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. J. Blomquist.
Cedar Keys	Levy	10	12	68.8	− 1.4	83	15	47	26	24	0.69	− 1.29	0.40	0.0	3	29	1	0	nw.	J. B. Lutterloh.
Clermont	Lake	105	17	71.6	− 0.6	94	15	48	20	35	0.44	− 1.72	0.33	0.0	2	14	16	0	w.	S. S. Fesler.
DeFuniak Springs	Walton	193	13	64.8	− 0.4	90	4†	38	26	38	6.30	+ 3.49	3.00	0.0	5	.....	.....	.....	sw.	R. W. Storrs.
DeLand	Volusia	27	12	67.0[b]	− 1.4	89[b]	3	41[b]	26	40[b]	0.61	.....	0.32	0.0	5	24	6	0	sw.	Dr. O. B. Webster.
Eustis	Lake	56	19	71.4	+ 0.5	94	15	46	26	37	0.63	− 1.65	0.34	0.0	4	24	6	0	w.	C. T. Smith.
Federal Point	Putnam	5	17	69.2	+ 1.3	92	3	40	26	40	1.10	− 1.77	0.56	0.0	4	21	9	0	sw.	E. S. Hubbard.
Fenholloway	Taylor	75	3	.....	.....	92[i]	11	31[i]	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss E. Wigglesworth.
Fernandina	Nassau	10	11	67.8	+ 0.7	87	1	41	26	28	2.96	+ 0.19	2.54	0.0	4	23	4	3	se.	W. B. C. Duryee.
Fort Meade	Polk	125	25	69.4	− 0.2	95	15	39	21†	48	0.20	− 1.78	0.16	0.0	2	20	10	0	nw.	G. L. Broderick.
Fort Myers	Lee	12	26	70.1	− 2.1	89	15	47	22	35	0.62	− 1.71	0.37	0.0	2	29	1	0	e.	Miss M. M. Gardner.
Fort Pierce	St. Lucie	6	17	67.6	− 4.6	89	19	42	22	39	0.28	− 2.18	0.28	0.0	1	26	3	1	se.	T. J. O'Brien.
Gainesville	Alachua	176	21	68.6	+ 0.1	90	8†	39	26	40	1.49	− 0.66	0.60	0.0	4	19	4	7	e.	I. P. H. Bell.
Grasmere	Orange	175	13	68.8	− 2.1	90	15†	46	21†	37	1.04	.....	0.80	0.0	4	26	4	0	.....	J. B. Escott.
Hilliard	Nassau	69	1	67.2	.....	92	2	34	26	41	0.95	.....	0.58	0.0	3	20	3	7	.....	The Hilliard Co.
Huntington	Putnam	56	13	69.0	+ 0.1	95	16	38	26	44	1.00	− 1.05	0.51	0.0	8	27	3	0	sw.	C. E. Walker.
Hypoluxo	Palm Beach	4	12	69.9	− 2.8	87	22†	47	23	33	1.91	− 1.06	1.57	0.0	2	26	4	0	sc.	G. A. Angevine.
Inverness	Citrus	43	9	67.8	.....	89	3†	40	26	38	0.24	− 2.04	0.17	0.0	2	1	27	2	sw.	W. H. Miller.
Jacksonville	Duval	101	38	67.9	+ 0.3	88	3	42	26	28	0.60	− 2.12	0.35	0.0	6	16	11	3	sw.	U. S. Weather Bureau.
Jasper	Hamilton	152	9	66.0	.....	92	15	32	25	45	1.07	− 1.81	0.46	0.0	3	.....	.....	.....	ne.	G. W. Duncan.
Johnstown	Bradford	125	11	66.1	− 1.1	93	2	33	26	50	1.03	− 0.90	0.70	0.0	5	17	10	3	.....	A. M. C. Brasch.
Jupiter	Palm Beach	34	22	70.1	− 2.1	86	18	51	26	26	0.51	− 2.12	0.39	0.0	5	17	13	0	se.	U. S. Weather Bureau.
Key West	Monroe	14	39	74.2	− 1.3	83	13	64	22	14	0.03	− 1.27	0.03	0.0	1	15	14	1	se.	Do.
Kissimmee	Osceola	65	17	70.8	− 0.6	92	15	45	21	39	0.36	− 1.95	0.21	0.0	3	17	12	1	sw.	J. A. Simpson.
Lake City	Columbia	210	20	65.8	− 2.7	91	10†	33	26	44	0.99	− 1.88	0.50	0.0	4	12	17	1	sw.	W. B. Knight.
Live Oak	Suwanee	109	5	67.4	.....	94	10	38	26	47	1.35	− 0.80	0.60	0.0	6	25	0	5	.....	D. O. Henry.
Macclenny	Baker	125	13	66.5[f]	− 1.1	90[f]	4†	34[f]	25	45	1.58	− 1.14	1.05	0.0	3	.....	.....	.....	.....	Griffing Bros. Co.
Madison	Madison	200	6	66.5	.....	91	2†	36	26	39	2.45	− 0.31	1.05	0.0	7	9	7	14	sw.	E. J. Vann.
Malabar	Brevard	24	8	69.0	.....	92	13	44	22†	38	0.28	.....	0.12	0.0	4	29	1	0	e.	J. F. Farley.
Manatee	Manatee	8	26	68.6	− 2.0	86	16†	50	27	29	1.03	− 0.85	0.42	0.0	5	16	13	1	s.	W. P. Fuller.
Mariana	Jackson	80	8	64.6	.....	89	10	36	26	40	3.67	.....	1.76	0.0	7	20	3	7	sw.	W. J. Watson.
Meritts Island	Brevard	20	27	68.8	− 2.9	85	13	51	26	27	0.30	− 2.60	0.12	0.0	5	17	12	1	e.	C. D. Provost.
Miami	Dade	5	13	72.7	− 1.3	89	13†	53	22	33	1.16	− 2.12	0.85	0.0	2	23	7	0	se.	E. V. Blackman.
Middleburg	Clay	10	8	67.3[d]	.....	93[d]	2	35[d]	26	43[d]	0.90	.....	0.35	0.0	4	.....	.....	.....	.....	G. A. Chalker.
Milligan	Santa Rosa	.....	.....	.....	.....	.....	.....	33	21	.....	1.67	.....	1.33	0.0	3	24	3	3	nw.	W. F. Mapoles.
Molino	Escambia	49	8	66.2[f]	.....	90[f]	13	37[f]	21†	42[f]	2.34	.....	1.62	0.0	2	.....	.....	.....	.....	W. H. Trimmer.
Monticello	Jefferson	207	5	65.6	.....	91	10	35	26	37	0.95	.....	0.40	0.0	3	22	5	3	s.	E. C. Potter.
Mt. Pleasant	Gadsden	260	4	63.8	.....	91	10	33	26	45	2.75	.....	1.30	0.0	5	13	1	12	nw.	Miss A. Grubb.
Newport	Wakulla	10	9	62.4	.....	87	10	35	26	42	T.	− 5.81	T.	0.0	0	.....	.....	.....	sw.	J. M. Ladd.
New Smyrna	Volusia	9	21	67.6	− 2.5	89	14	45	21†	32	0.60	− 1.64	0.30	0.0	4	.....	.....	.....	.....	F. Nordman.
Ocala	Marion	98	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. F. T. Schreiber.
Orange City	Volusia	39	16	68.6[b]	− 1.6	93	2	40[c]	26	47[c]	0.72	− 1.29	0.57	0.0	2	26	4	0	sc.	J. D. Graham.
Orlando	Orange	111	18	70.0	− 0.9	91	2	44	22	40	0.38	− 1.67	0.17	0.0	4	9	16	5	nw.	Jas. Thompson.
Pensacola	Escambia	149	32	65.8	− 1.9	78	9	40	25	22	1.03	− 2.13	0.66	T.	5	10	14	6	sw.	U. S. Weather Bureau.
Plant City	Hillsborough	121	16	70.0	− 0.3	94	15	42	21	43	1.17	− 0.96	0.65	0.0	3	16	13	1	s.	E. B. Trask.
Rockledge	Brevard	28	2	67.8	.....	83	13†	47	22	30	0.15	.....	0.15	0.0	1	27	3	0	se.	Rev. J. H. White.
Rockwell	Marion	60	8	67.1[c]	.....	90[c]	4	42[c]	22†	40[c]	0.25	− 1.67	0.25	0.0	1	.....	.....	.....	sw.	Dunellon Phos. Co.
St. Andrew	Washington	14	12	64.3	− 1.8	82	9	39	6	34	2.14	+ 0.05	1.25	0.0	6	23	7	0	w.	W. A. Emmons.
St. Augustine	St. Johns	19	60	67.0	− 1.3	85	10	40	26	31	1.82	− 0.92	0.64	0.0	7	17	10	3	se.	J. R. Palmer.
Sand Key	Monroe	46	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Weather Bureau.
St. Leo	Pasco	140	14	69.0	− 1.9	92	15	43	27	36	0.72	− 1.43	0.28	0.0	5	23	5	2	w.	G. Schneider.
Satsuma Heights	Putnam	98	2	68.2	.....	93	16	38	26	40	1.01	.....	0.49	0.0	6	18	12	0	.....	The Satsuma Co.
Switzerland	St. Johns	10	13	68.1[a]	+ 0.8	91[a]	2	38[a]	26	36[a]	1.27	− 1.64	0.35	0.0	6	.....	.....	.....	.....	W. C. Steele.
Tallahassee	Leon	192	23	65.6	− 1.4	89	10	38	26	35	3.04	− 0.01	1.25	0.0	5	15	13	2	w.	W. H. Markham.
Tampa	Hillsborough	79	20	69.0	− 1.6	88	15	50	26	28	1.27	− 0.58	0.59	0.0	6	18	10	2	nw.	U. S. Weather Burreau.
Tarpon Springs	do	20	25	67.9	− 2.2	89	15†	46	21	35	0.23	− 1.50	0.09	0.0	3	23	6	1	w.	A. P. Albaugh.
Titusville	Brevard	6	15	.....	.....	.....	.....	.....	.....	.....	0.50	− 1.40	0.16	0.0	.....	.....	.....	.....	.....	F. M. Taylor.
Wausau	Washington	250	10	65 7	− 0.1	91	11	36	26	40	5.40	+ 1.89	2.40	0.0	5	12	14	4	sw.	Curtis Jones.
Alabama.																				
Alaga	Houston	105	5	.....	.....	.....	.....	.....	.....	.....	7.50	.....	3.56	0.0	6	17	5	8	n.	James L. Willis.
Anniston	Calhoun	741	19	60.0	− 0.4	85	30	30	25	39	3.21	− 0.42	1.55	T.	10	7	8	15	n.	U. S. Weather Bureau.
Ashville	St. Clair	685	17	60.8	− 0.7	86	29	29	25	44	3.07	− 1.80	1.54	0.0	7	14	6	10	sw.	George R. Cather.
Auburn	Lee	732	28	63.1	0.0	88	11	32	26	36	3.76	− 0.22	1.50	T.	7	10	7	13	nw.	Dr. James T. Anderson.
Benton	Lowndes	149	9	.....	.....	.....	.....	.....	.....	.....	2.33	.....	0.72	T.	4	14	11	5	w.	S. T. Pruitt.

TABLE 1.—*Climatological data for April, 1910. District No. 2*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Alabama—Cont'd.																				
Bermuda	Conecuh	.....	23	63.5[b]	− 1.5	87[a]	2†	32[b]	26	44[b]	5.06	+ 1.96	4.04	T.	6	17	8	5	se.	M. J. Morris.
Birmingham	Jefferson	700	22	61.2	− 2.3	83	3	33	25	33	2.54	− 1.13	1.29	0.1	6	5	10	15	nw.	U. S. Weather Bureau.
	Shelby	500	9	.....	.....	.....	.....	.....	.....	.....	3.13	.....	1.80	1.0	7	18	3	9	e.	L. G. Privett.
Calera	Shelby	738	9	62.1	.....	86	4	32	25	39	4.22	.....	1.56	T.	7	19	9	2	w.	Dr. Lyman Ward.
Camp Hill	Tallapoosa	594	6	.....	.....	.....	.....	.....	.....	.....	1.95	.....	1.01	0.0	5	9	21	0	.....	Joe L. Daniel.
Cedar Bluff	Cherokee	331	22	66.0	− 1.0	86	12	36	25	32	2.76	− 1.43	2.20	0.0	4	20	8	2	sw.	George A. Maloney.
Citronelle	Mobile	300	17	61.4	− 1.6	85	9	31	26	39	3.59	− 0.16	2.54	T.	7	10	1	19	sw.	Wallace C. Edler.
Clanton	Chilton	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.52	.....	1.60	T.	3	18	4	8	se.	E. L. Rose.
Cochrane	Pickens	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cordova	Walker	334	19	60.6	− 0.7	86	15†	30	24†	44	2.69	− 2.29	1.80	T.	4	12	18	0	s.	Scott Maxwell.
Cullman	Cullman	802	2	59.0	.....	85	29†	30	24†	43	2.41	.....	1.90	T.	5	13	8	9	nw.	Eugene A. Grayot.
Dadeville	Tallapoosa	760	5	.....	.....	.....	.....	.....	.....	.....	3.73	.....	1.54	T.	7	15	8	7	sw.	Dr. W. B. Fulton.
Daphne	Baldwin	.....	19	65.8[a]	− 0.6	84[a]	14	38[a]	25	27[a]	1.92	− 1.04	1.45	0.0	3	18	6	6	sw.	John H. Young.
Demopolis	Marengo	.....	18	.....	.....	.....	.....	.....	.....	.....	4.86	+ 0.53	1.90	T.	8	20	6	4	sw.	George E. Pegram.
Eufaula	Barbour	200	26	61.6	− 2.8	86	11	32	26	42	7.04	+ 3.95	4.48	0.0	8	19	5	6	nw.	Dr. J. B. Whitlock.
Evergreen	Conecuh	285	26	63.0	− 2.4	88	1†	32	26	43	6.00	+ 2.78	2.50	0.0	5	20	0	10	n.	Robert L. Whitcomb.
Fayette	Fayette	359	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Charles W. Saunders.
Flomaton	Escambia	91	18	64.0	− 2.1	85	2	35	25†	41	2.21	− 1.70	1.40	0.0	4	24	1	5	n.	T. J. Farris.
Fort Deposit	Lowndes	520	26	64.2	− 0.9	87	11	34	25†	37	5.04	+ 1.32	3.50	T.	3	17	5	8	ne.	J. F. Hattemer.
Gadsden	Etowah	621	26	60.6	+ 0.5	86	4	32	25	38	2.98	− 1.34	1.50	0.0	9	10	4	16	nw.	D. P. Goodhue.
Goodwater	Coosa	826	15	59.8[a]	− 2.3	85[a]	10†	30[a]	26	37[a]	3.10	− 0.92	1.70	T.	6	18	0	12	sw.	D. S. Brown.
Greensboro	Hale	220	31	63.5	− 0.2	85	15	35	25†	40	2.20	− 2.04	0.55	T.	6	18	3	9	nw.	W. E. W. Yerby.
Greenville	Butler	444	9	.....	.....	.....	.....	.....	.....	.....	7.53	.....	6.47	0.0	4	24	1	5	sc.	E. M. Lewis.
Hamilton	Marion	.....	14	59.7[a]	− 0.3	87[a]	9	30[a]	24†	45[a]	1.66	− 2.81	1.30	T.	4	13	12	5	s.	Prof. Samuel Jordan.
Highland Home	Crenshaw	.....	18	64.4	− 0.2	88	2	34	25†	34	4.43	+ 0.73	2.93	T.	4	13	12	5	s.	Robert L. King.
Livingston	Sumter	160	26	61.8	− 2.1	85	15	33	26	37	2.77	− 1.14	0.96	0.0	5	27	0	3	e.	U. S. Engineers.
Lock No. 4	Talladega	510	13	61.2	+ 1.2	86	11	31	26	42	4.05	− 0.43	2.10	T.	7	22	0	8	nw.	A. L. Crosby.
Lucy	Houston	.....	5	64.8[a]	.....	91[a]	3†	30[a]	26	45[a]	7.39	.....	3.34	0.0	6	9	15	6	.....	Mrs. A. L. Awbrey.
Maple Grove	Cherokee	.....	17	59.8	+ 0.6	88	4	31	24	45	3.64	− 1.11	1.58	0.0	9	9	18	3	nw.	E. Mason.
Mentone	DeKalb	1,595	3	.....	.....	.....	.....	.....	.....	.....	2.55	.....	2.55	T.	2	15	3	12	w.	Evie Oswalt.
Milstead	Macon	.....	7	.....	.....	.....	.....	.....	.....	.....	3.00	.....	1.66	0.0	4	11	13	6	e.	U. S. Weather Bureau.
Mobile	Mobile	57	38	66.7	+ 0.7	82	13	39	25	24	1.54	− 2.81	1.39	0.0	2	16	11	3	sw.	Do
Montgomery	Montgomery	240	38	63.6	− 1.6	86	3	34	25	34	2.66	− 1.59	0.98	T.	5	13	9	8	w.	Dr. J. Huggins.
Newbern	Hale	.....	17	63.2	− 0.9	89	29	32	26	40	2.40	− 1.86	1.37	0.1	6	14	13	3	nw.	Aquilla J. Ketchum.
Oneonta	Blount	857	16	57.4	− 2.5	82	3†	28	29	47	2.69	− 1.80	1.88	T.	8	5	7	18	s.	A. H. Read, Jr.
Opelika	Lee	817	31	62.5	− 1.1	86	4†	33	26	36	2.86	− 0.89	2.00	0.1	6	21	0	9	n.	Miss Lucy Sellers.
Ozark	Dale	400	8	63.6	.....	87	2†	32	26	40	5.98	.....	4.40	0.0	5	15	2	13	s.	Jos. B. Bell.
Prattville	Autauga	281	10	62.2	− 0.7	86	3	31	26	39	2.17	.....	0.84	T.	4	18	9	3	s.	E. A. Carr.
Pushmataha	Choctaw	.....	19	63.4	− 0.8	90	14	31	26	46	3.09	− 1.46	2.47	T.	6	15	6	9	sw.	Charles F. Brislin.
Selma	Dallas	147	30	62.2	− 1.6	88	2†	32	25†	42	4.62	+ 0.36	2.14	T.	8	18	4	8	w.	Rev. J. B. Franckhauser.
Spring Hill	Mobile	312	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Talladega	Talladega	554	20	61.7	− 0.7	86	4†	30	25	42	3.06	− 0.56	1.11	T.	6	15	13	2	w.	Ross Bartholomew.
Tallassee	Elmore	.....	19	.....	.....	.....	.....	.....	.....	.....	2.56	− 1.34	1.27	T.	6	15	3	12	nw.	P. A. Noble.
Thomasville	Clarke	385	19	61.2	− 3.7	85	2	30	26	44	1.22	− 2.15	0.43	T.	5	22	5	3	n.	J. G. Forster.
Troy	Pike	581	2	63.4	.....	88	2	33	25	35	5.59	.....	3.90	T.	5	19	11	0	sw.	C. S. Tutwiler.
Tuscaloosa	Tuscaloosa	230	29	61.6	− 1.5	88	9	32	25	46	2.93	− 1.87	1.00	1.5	7	16	0	14	s.	W. S. Wyman.
Tuskegee	Macon	.....	10	63.8	− 0.7	89	9	32	26	36	1.15	− 2.81	0.56	T	3	9	19	2	w.	Prof. George W. Carver.
Union Springs	Bullock	216	23	63.5	− 1.3	87	3†	34	26	35	5.79	+ 1.86	4.25	T.	5	8	19	3	w.	P. L. Cowan.
Uniontown	Perry	273	24	63.6	− 1.5	85	9	33	25	37	3.92	0.00	2.66	T.	4	12	15	3	nw.	F. D. Stevens.
Valley Head	DeKalb	1,031	25	59.0	+ 0.2	88	3	31	24	44	3.17	− 1.51	1.50	T.	4	16	13	1	s.	M. T. Floyd.
Wetumpka	Elmore	205	18	63.8	+ 0.3	87	2†	34	26	40	2.91	− 1.29	1.30	T.	4	20	0	10	n.	U. S. Engineers.
Mississippi.																				
Aberdeen	Monroe	210	22	60.6	− 2.0	87	29	33	25	43	3.01	− 1.05	1.20	T.	8	16	5	9	s.	L. D. Godfrey, jr.
Agricultural College	Oktibbeha	424	20	62.7	− 1.0	88	3	31	25	45	3.02	− 1.11	1.30	T.	6	8	17	5	nw.	S. P. Dent.
Bay St. Louis	Hancock	28	17	66.6	− 1.1	84	12	38	25	33	0.68	− 4.64	0.56	0.0	2	16	10	4	se.	Brother Stanislaus.
Biloxi	Harrison	24	19	68.4	+ 0.6	86	13	39	25	39	0.75	− 3.36	0.47	0.0	3	18	5	7	se.	Miss M. Josie Pope.
Booneville	Prentiss	504	16	60.3	+ 0.1	82	15†	32	25	38	3.35	− 0.96	1.63	T.	8	10	17	3	sw.	Dr. D. T. Price.
Brookhaven	Lincoln	500	22	63.9	− 2.2	91	13	30	25	41	5.96	− 0.08	5.05	0.0	4	18	8	4	e.	W. J. Bee.
Columbia	Marion	110	6	.....	.....	.....	.....	.....	.....	.....	3.20	.....	1.72	0.0	5	19	5	6	s.	N. R. Drummond.
Columbus	Lowndes	191	22	61.2	− 0.9	89	30	32	26	44	2.94	− 2.36	1.44	T.	7	14	6	10	sw.	J. B. Love.
Crystal Springs	Copiah	468	18	63.4	− 1.9	86	14	30	25	33	4.82	+ 0.56	3.70	0.0	5	23	6	1	.....	D. H. Miller.
Edinburg	Leake	.....	2	61.0	.....	86	14†	30	26	44	4.25	.....	2.26	0.0	9	12	7	11	s.	J. Y. Blocker.
Enterprise	Clarke	248	5	.....	.....	.....	.....	.....	.....	.....	2.11	.....	1.44	0.0	6	16	1	13	s.	J. B. Thompson.
Fulton	Itawamba	.....	1	.....	.....	.....	.....	.....	.....	.....	2.72	.....	0.90	0.0	6	11	8	11	s.	A. L. Summers.
Hattiesburg	Forest	189	17	65.4[a]	− 0.8	92[a]	13	35	25	42[a]	0.80	− 3.64	0.62	0.0	2	18	2	10	s.	T. C. Spence.
Hazlehurst	Copiah	460	20	62.6	− 3.5	88	13	29	25†	43	5.37	+ 0.51	4.02	0.0	8	16	4	10	s.	J. D. Granberry.
Jackson	Hinds	280	23	63.9	− 1.5	87	14	31	25	38	5.20	+ 0.62	4.19	0.0	9	14	9	7	sw.	B. H. Klyce.
Lake	Scott	446	22	.....	.....	86[a]	14	.....	.....	.....	6.59	+ 2.48	4.30	T.	4	15	9	6	sw.	J. A. Freeman.
Lake Como	Jasper	.....	7	62.2[a]	.....	90[a]	13	31[a]	25	41[a]	2.16	.....	2.03	0.0	2	10	16	4	s.	C. Thigpen.
Laurel	Jones	241	6	65.1	.....	88	13	32	25	39	1.80	.....	0.90	T.	5	12	14	4	sw.	Thomas W. Flynt.
Leakesville	Greene	.....	16	66.0[e]	.....	89[e]	29	37[e]	25	46[i]	3.06	− 1.21	2.86	0.0	2	28	0	2	.....	Dr. Sam Pool.
Louisville	Winston	561	21	61.6	− 1.2	87	14	31	26	40	3.04	− 1.20	1.63	0.2	5	.....	.....	.....	.....	B. T. Webster.
McNeill	Pearl River	230	7	65.8	.....	87	12	36	25	37	0.42	.....	0.27	0.0	2	13	16	1	se.	Prof. E. B. Ferris.
Macon	Noxubee	185	22	61.7	− 1.9	87	14†	31	26	42	3.90	.....	2.00	T.	3	15	5	10	se.	Finis E. Carleton.
Magnolia	Pike	415	14	66.0	+ 0.1	90	13	32	25	39	2.45	− 3.25	1.30	T.	6	8	17	5	nw.	Miss Ruby V. Roberts.
Meridian	Lauderdale	375	20	62.1	− 2.0	86	14	32	25	37	2.26	− 2.78	1.95	T.	5	9	12	9	nw.	U. S. Weather Bureau.
Merrill	Greene	76	5	.....	.....	.....	.....	.....	.....	.....	1.02	.....	0.62	0.0	3	19	5	6	sw.	L. C. Helms.
Monticello	Lawrence	209	3	63.8	.....	90	13	33	24†	42	5.87	.....	5.35	0.0	3	19	8	3	nw.	Dr. G. A. Teunisson.
Okolona	Chickasaw	311	22	59.6	− 1.7	85	29	32	25	42	2.35	− 0.87	1.00	T.	7	13	10	7	s.	D. H. Shell.
Pascagoula	Jackson	15	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tom Swartwout.
Pearlington	Hancock	10	22	66.0	− 1.6	87	12†	38	25	34	1.29	− 3.36	1.00	0.0	3	13	14	3	nw.	Miss Annette Koch.
Porterville	Kemper	.....	5	62.8	.....	89	14	32	25	41	2.81	.....	1.83	T.	5	9	15	6	w.	I. S. Rea.
Shubuta	Clarke	197	5	.....	.....	.....	.....	.....	.....	.....	1.84	.....	1.38	0.0	5	17	7	6	s.	Geo. A. Floyd.
Waynesboro	Wayne	191	23	62.8	− 1.9	87	13	34	25	44	2.10	− 2.45	0.90	0.0	5	19	2	9	s.	R. S. Burke.
Woodland	Chickasaw	.....	1	.....	.....	.....	.....	.....	.....	.....	2.78	.....	1.11	0.0	8	.....	.....	.....	.....	Tallahatchie Drain. Com.
Louisiana.																				
Pearl River	St. Tammany	.....	4	.....	.....	.....	.....	.....	.....	.....	0.17	.....	0.13	0.0	3	22	3	5	e.	Geo. F. Baneks.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
‖ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
| Estimated by observer.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for April, 1910. District No. 2, South Atlantic and east Gulf States.*

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Virginia.																															
Arvonia	James			.75	.28		T.						.76			T.		2.15	.10		.05	.04		.07	.18	.31		.10				4.79
Ashland	do																														
Buchanan[‖]	do				.50								.12	.96			1.08	.30	.09		.10			.06		.36		.18				3.75
Callaville	Chowan			1.20	.50								.18	.50				2.95	3.15						1.20							9.68
Cape Henry	Coast		T.	.11	.04		T.						.21	.10				.56	.19	.14		.16	.02		.05				T.			1.58
Catawba	Roanoke																														
Charlottesville	James		.02	.49	.33								.43	T.		T.	.19	2.02	.16	.46	.03	T.		.02	.12	.26	T.	.06		T.			4.59
Clarksville[‖]	Roanoke			.28										.95	.10			1.60	1.26	.44			.20			.26	.30		.20				5.59
Columbia	James			.77	.24								.60				.13	2.17	.28	.09		.03	.10	.12		1.19		.04					5.76
Danville[‖]	Roanoke		.13	T.	.45			T.					T.	1.01	.03			1.38	.72	.36		.02		T.	T.		T.	.02	.24				4.66
Diamond Springs	Coast			.22			.10						.47	.01				.65	.45	.01		.18											2.09
Hampton	do				.05		.20						T.	.40			.10	.30	.10	.30	.10	.15				.20				T.			1.90
Hot Springs[‖]	James				.66		.14						1.05	.31				.42	.38	.12					.32		.52	.20					4.12
Ivor	Chowan			.48	.27		.25						.01	.40				.05	1.15	.21		.27			.31	.24	.11						4.08
Lassiter	James			.53									.67					2.81	.20	.12	.08				.24	.54							5.19
Lexington	do			.59	.35								.01	.40			35	1.10	1.27	.12		.01		T.	.15	.22	.14	.31					5.02
Lynchburg	do	T.	.01	.48									.34	.14			1.88	1.10	.83	.04						.68		.37					5.87
New Castle[‖]	do			.60	1.12									1.18					1.27	.30			.07			.10	1.12	1.07					7.86
Newport News	Coast			.36	.08		.32						.19	.23				.58	.83	.13		.20			1.42		.04						4.38
Norfolk	do		T.	.20	.05		.21						.26	.14				1.05	.29	.06		.18	T.		.02	T.			T.				2.46
Petersburg	James			.86	.20		T.						.40		T.				5.43	.11		.27		T.	.40	.60	.05	T.					8.32
Randolph[‖]	Roanoke			.08	.26									.36				.34	.72	.30					.26	.18	.30		.20				3.00
Richmond	James			.57	.03		.33					T.	.39	.01			28	3.65	1.87	.05	T.	.17	T.	.34	.89	.16		T.		T.			8.74
Rocky Mount	Roanoke		.17		.45								.31	.45				1.62		.10	.04					.25		.08					3.47
Saxe	do		.17		.23								.17	.55				2.00		1.24	.01	.06			.35	.34		.23					5.35
Spottsville (near)	Chowan		T.	.86				.17					.40	.15				1.20	.70	.15		.23			.17	.47		T.		.10			5.14
Williamsburg	James			.62	.15		.30						.10	.40				1.80	1.48	.20		.30			.75	.85	.15						7.10
North Carolina.																															
Beaufort	Bogue Sound													.65					.20	.01		.08			.06		.04		.15				1.19
Belhaven	Pungo			1.03	.25		.10							.48					.64	.17			.05	.12									2.84
Brewers	Pedee	T.	.22	.09									.45	.41		.31	.43	.50	.13	T.	.13			.15	.03	.32	.02	.20					3.39
Carolees	Santee												T.	.20				1.17	.10						T.	T.		.06					1.46
Chalybeate Springs	Cape Fear		T.		.15		.05						T.	.71				.89	.11	.16		T.				.36		.48	.03				2.94
Chapel Hill	do		.25		T.		T.						T.	.61				2.89	.17	.49		T.		.11	.02	.47		.16	.02				5.19
Charlotte	Santee			T.			T.						.40	.10		.01	.65	.64	.06	.07				.01	T.	.21		.19					2.34
Chimney Rock	do					.06								.09			15	1.04	.11		.02			.05		.17							1.69
Clinton	Cape Fear		.01				.92						.24	.08				.70	.18			.02		.06	T.	.20		.24					2.65
Durham (near)[‖]	Neuse	.21											1.12	.04			1.57	1.02	.23			.05		.05		.33		.18					4.80
Eagletown	Chowan		.07	.08	.36		.25						.24	1.40			T.	1.05	.25	.12		.22		T.	.32	.28		T.					4.64
Edenton	Albemarle Sound		.50	.20	.70									1.25					1.40	.35					.10								4.50
Fayetteville[‖]	Cape Fear			T.				.02						.28	.22			T.	2.88	.08			.02		.05	.03	.18		.37				4.13
Goldsboro[‖]	Neuse		T.		.03			.24						1.05	.73			.02	.97	.23			.02		.04	T.	.34		.82				4.49
Graham[‖]	Cape Fear		.38		.22									.35			.02	1.38	.65	.28			.02		.14	.05	.32	T.	.11		T.		4.12
Greensboro[‖]	do		.43		.48									.41			10	1.25	.29	.39					.09		.30	.02	.24				4.00
Greenville[‖]	Tar				.15				.30					.28	.37				.96	.15						.55	.27	.10		.10			3.23
Hatteras	Pamlico Sound			.12	.06								T.	.11					.05			.02		T.	.31	T.							0.67
Henderson	Tar	T.	.15	.16			T.						.65	1.19				3.75	.10	.03				T.	.64	.08		.21					6.96
Kinston	Neuse						.35							.73				.11		.21					.60	.60		.22	.08				2.90
Lenoir	Santee	.08	.51	.52			.13							.36		.03	.14	.65	.10	.05						.20		.10					2.87
Lexington	Pedee	.15				.05							.28				1.76		.10							.40		.10					2.84
Lincolnton	Santee						T.											.92	.21							.20		.30					1.63
Louisburg[‖]	Tar		.22		.20		T.							1.40	.11			1.20	3.22	.10		T.				.48	.23						7.16
Lumberton[‖]	Lumber			.06				.30						.74	.05				.50	.15					.20	T.	.17		.07				2.24
Manteo	Roanoke Sound			.22									T.	1.30					.12	.38		.28			.10								2.40
Marion	Santee	T.	.05	1.23								T.	.17	.13		T.	.08	.60	.08	T.				T.		.13							2.67
Moncure[‖]	Cape Fear				.06			.01					T.	.30	.02			.69	.82	.46					.11	.05	.43		.33				3.28
Monroe	Pedee						T.					T.	T.					.70	.14					.07		.17		T.					1.08
Morganton	Santee		.21	.17			.03							.40			.13	.60	.04	.03				T.	T.	.05		T.					1.66
Mount Airy	Pedee		.25	1.03									.04	.73			.22	.76	.03		T.	.25		T.	.09	.26		.27					3.93
Mount Holly[‖]	Santee												T.	.32				1.02	.16	.20					.06		.22	.04					2.02
Nashville[‖]	Tar		.57	.03	.36								1.02	.52				31	1.90	.09		T.	.02	T.		.21	.25		T.				5.28
Newbern[‖]	Neuse				T.			.15						.18	.36			T.	1.60	.66	.03		.04		.03		.14		.12				5.31
Pinehurst	Lumber												T.					.50							.50	.40		.40					1.80
Pittsboro	Cape Fear													.10				2.60	.40						.90			.20					4.20
Raleigh	Neuse	.07		.25			.01						.66	.49				2.55	.21	.02		.01		.01	.06	.35		.32					5.01
Ramseur	Cape Fear			.05		.01								.73				2.00	2.12	.18					.10	.18		.08					5.45
Randleman[‖]	do		.07	.12	T.			T.						.34				.94	.20	.25		T.			.12		.20		.20				2.44
Reidsville[‖]	do		.25										1.54			.02	1.00	.45	.51		.05					.25	T.	.34					4.41
Rockhouse	Savannah			T.		.20						T.	.11	.07		.09	2.43		.06	.02			.02	.02		.44	.13	.07					3.66
Rockingham	Pedee												.50					.83	.27							.40		.15					2.15
Roxboro	Roanoke																																
Salem	Pedee		.55										.18	.40			.12	.98								.41		.12					2.76
Salisbury[‖]	do		.06	.42										.58				1.40	.25	.20							.10	.30	.66				3.97
Saxon[‖]	Roanoke	.10	.04										.90			.28	.93	.42			.07				.54		.20						3.48
Scotland Neck	Tar		.26	.03	.99		.10						.03	1.50				1.23	.43	.10		.05			.47	.46							5.65
Selma	Neuse						T.						.40	.25			.20	1.45	.50						.20	.30		.15					3.45
Settle	Pedee		.58										.10		T.	T.	.75	.67		T.					.43			.05					2.58
Sloan	Cape Fear		T.				.13						T.	.37			T.	.96		.31		T.				.34		.34					2.45
Snow Hill	Neuse				.18									.46				.65	.34	.14		.03				.24		.03	.20				2.27
Southern Pines	Cape Fear						T.						T.	.35				1.15	.15	.10				T.	.38	.40		.35					2.88
Southport	do												T.	.22				14	1.65	.21		.09	T.		.23	.06		T.					2.60
Statesville	Pedee		.17	.12									.01	.62				.66	.08							.29		.12					2.07
Tarboro[‖]	Tar		.15	.03	.72			.21						1.01	.42			.05	1.84	.20			.08		.23	.08	.32						5.30
Troy	Pedee													.89				1.61	.36	.08				.03		.27		.16					3.40
Weldon[‖]	Roanoke		.08	.03	.09			T.					T.	1.43	.44			12	4.51	.05	T.	T.	.30		.05	.33	.43		.02					7.88
Whiteville	Waccamaw						T.							1.18				.10	.08	.23		T.		.50	.15	.29		.10					2.63
Willard	Cape Fear						.14							.67					.28	.11				T.		.26		.09					1.55
Wilmington	do						T.						T.	.34				.52	.01	.24		T.			.01	.08		.41					1.61
Yanceyville	Roanoke		.04					.24					.85					.70							1.24	.40	.08				.23		3.78
South Carolina.																															
Aiken	Edisto																	1.63						.22									1.85
Allendale[‖]	Savannah													.18				.55	.33	.14													1.20
Anderson	do													.01			.46	1.42	.04							.12		.06					2.11
Batesburg[‖]	Edisto						T.							T.				.91	.53						T.	T.	T.		.02				1.46
Beaufort	Ocean												1.13					1.70		.05	.20		T.	.50										3.38
Blackville[‖]	Edisto					T.							.05			T.	.85	.17	T.					.08			.02	.07					1.24
Blairs[‖]	Broad																	1.06	.24	.12													1.42
Bowman	Edisto																																
Calhoun Falls[‖]	Savannah																																
Camden	Wateree													.04				.58	.12	.06					.02		.12						0.94
Catawba[‖]	Catawba							T.						.18				1.20	.18								.44	.02	.02				2.04
Chappells[‖]	Saluda																	.66	.22	.14													1.02
Charleston	Ocean					T.							T.	.26				.34	T.					.28		.12							1.00
Cheraw[‖]	Pedee		T.	T.				.04					T.	.04	T.			.28	.68	.30					.19		.22	T.	.07				1.82

TABLE 2.—*Daily precipitation for April, 1910. District No. 2*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
South Carolina—Cont'd																																	
Clemson College	Savannah						.12						.13					1.60	.06							.20	.05						2.16
Columbia	Congaree						T.						T.	T.			.24	.33	.13					.06	T.	.01		.01					0.78
Conway‖	Waccamaw							.24						.07					.19	.21					.13	.12	.20	.03					1.19
Darlington	Pedee						T.						.24	T.			.17	.84	.33						T.	.25	T.	.10					1.93
Dillon	Little Pedee			.01			.20						.15			T.	.78	.13	.11		T.	.08		.19	.24		.22					2.11
Effingham‖	Lynches							T.						.50	T.				.75							T.	.25	T.					1.50
Ferguson‖	Santee							.14						.63					.26	.41						.63							2.07
Florence‖	Pedee													.40				.10	.76	.25					T.		.30		T.				1.81
Georgetown	Coast						.02							T.						.04				T.		.02		T.					0.08
Greenville‖	Saluda						.06							.13	.09			1.05		.13				T.			.10	T.					1.56
Greenwood‖	...do													T.				1.87	.41	.07					T.		.10		.05				2.50
Heath Springs	Wateree		T.				T.							T.			.52	.60	.03					.02	T.	.20							1.37
Jacksonboro	Combahee						T.							T.				.60	T.	.20					.42	.28	.24		T.				1.74
Kingstree‖	Black							.18						.16					.42	.55					.48		.20		.10				2.09
Liberty	Savannah		T.			.20							.25	T.			.30	1.35	.05					T.		T.	.02						2.17
Little Mountain	Saluda												.02					.97	.07						T.			.02					1.08
Newberry	...do												.05	.01				1.42	.18					.16	.01	.01		.08					1.92
Pelzer‖	...do													T.				1.84	T.	.02						T.	.20	.02					2.08
Pinopolis	Cooper																																
St. George‖	Edisto																	.60	1.20	.10							.30						2.20
St. Matthews‖	Santee													.01			.96	.10	.15						.15		.15		.30				1.82
Saluda	Saluda																	1.15						15		.03		.04					1.37
Santuc	Broad		T.				T.						T.	.26			T.	1.32	.15					.03	T.	T.		T.					1.76
Smith Mills‖	Pedee							T.						T.					.08						.41		.63						1.12
Society Hill	...do						T.						.13				.60	.80								.39							1.92
Spartanburg‖	Broad																	1.20	.04	.05				T.	.02		T.	.07	.05				1.43
Summerville	Ashley						.08						T.	.13				.40	.04	.11				.40	.29	.34		.09	T.				1.88
Trenton	Edisto						.07						.04					1.70					23										2.04
Trial	Santee						.10						T.	.22			T.	.25	.28					.26	.18	.08	.02						1.39
Walhalla	Savannah																																
Walterboro	Ashepoo						.15					.18	.06			T.	.66							1.03		.11		.09					2.28
Winnsboro	Broad						T.						.40			.60	.70							T.		T.							1.70
Winthrop College	Catawba												T.	.47			1.46	.05	.04					.03		.13		.06	.03				2.27
Yemassee‖	Combahee							T.						.18	.28				.81	.11					.80	.05		.07					2.30
Georgia.																																	
Abbeville‖	Ocmulgee					*	.32						*	.32			*	1.75	T.		*	.12		T.		T.	*	.24					2.75
Adairsville‖	Coosa																																
Albany‖	Flint					*	.16						*	.81		.02	.04	1.21						*	.02	.21		.04	.28				2.79
Allapaha‖	Allapaha												*	.37				1.04	T.									.10	.09				1.60
Americus‖	Flint					*	.10						*	1.10			*	3.25	*	.36				*	.20	.13		*	.12				5.26
Athens‖	Oconee					*	.14						*	1.10			*	2.59					*	.04	T.	.05	.10	*	.18				4.20
Atlanta	Chattahoochee		T.			.09						T.	.14	.03		T.	2.10	.24			T.			.09		.23	T.	.23					3.15
Augusta	Savannah						.08						.10		T.	T	.12	.90	T.					.22		.02		.07					1.51
Bainbridge‖	Flint						T.							.78	1.13			1.25		.02						.13		T.	T.				3.31
Barnesville	...do					T.							.28				2.83	1.14			T.			.06	.21	T.		.21					4.73
Blakely	Chattahoochee																																
Brunswick	Altamaha																																
Butler‖	Flint												*	.21			*	4.10				*	.37	*	.20	T.	*	.10	.28				5.26
Camak‖	Savannah												*	.32			*	1.80						T.		T.							2.12
Canton	Coosa																																
Carlton‖	Savannah												*	.56			*	2.20								T.	.10	*	.10				2.96
Carrollton	Chattahoochee					.40							.10	.15	T.	T.	1.20	.40						.35		.25		.25					3.10
Clayton	Savannah		T.	T.		.05						T.	.19	.10		T.	.71	1.57	T.	T.				T.		.53		T.					3.15
Columbus‖	Chattahoochee							.10						.43				5.00				T.		.14	.03	.07	.01	T.	.15				5.93
Covington‖	Ocmulgee												*	1.50	.20		*	2.60			*			.10	*	.19		*	.20				4.79
Cuthbert‖	Chattahoochee					.12							1.60				5.20							.11									7.03
Dahlonega	...do					.27							.03	T.		*	1.76	1.39						T.	.01	.38	.02	.15					4.01
Diamond	Tennessee					.45							.06	.04		1.09	2.11	.10	T.	T.				.25	*	.47	*	.54					5.11
Douglas	Satilla																																
Dublin‖	Oconee						24						*	.60	.10		*	1.66	.12	.06	*	.10		*	.04		T.	.04	.12				3.08
Dudley	...do					T.	.06						.25	.21				1.72			T.			.15		T.		.11					2.50
Eastman‖	Ocmulgee												*	.88				.82						*	.15		*	.09	.06				2.00
Eatonton	Oconee												.07	.12			.83	2.41						.03		.03		.15					3.64
Elberton	Savannah													.33			20	1.80	T.							.08		.16					2.57
Experiment	Chattahoochee					.10							1.05				.05	1.25						.10		.25		.12					3.92
Fort Gaines‖	...do						.50						T.	1.69				3.80								.30			T.				6.29
Gainesville‖	...do												*	.10		*	1.03	2.95								.20	.03	*	.08				4.39
Gillsville	Oconee						.03						.15	T.				.87	1.25					T.		T.		.31					2.61
Glennville‖	Altamaha						T.					*	.02	.34	T.		.04	.45	.18	*	T.			*	.14		*	.09	.12				1.38
Gore	Coosa			.02		.10	.02						.10	.05		.86	1.25	.38						.12		.24		.19					3.33
Greensboro‖	Oconee												*	T.				*	3.48								T.	T.	*	.08				3.56
Griffin‖	Chattahoochee					*	15						*	1.25				*	2.10					.10	*	.17	.12	T.	.15					4.04
Harrison	Ogeechee					.25							.10					.50	1.44					.20		.01		.15					2.65
Hartwell	Savannah					.21												1.29	1.17	.11			.38	.42									3.58
Hawkinsville‖	Ocmulgee					*	.02						*	.08	.22			*	1.84	*	.20				*	.16	.06	*	.10	.06				2.74
Helena	...do												.33	.93	T.	.01		1.06		.09	.03			.07	T.	T.		.10	.04				2.66
La Fayette	Tennessee															1.37	1.75								.09	.19		.20					3.60
Lisbon	Savannah		T.											.07			.15	2.34						.03		.02		.03					2.64
Lost Mountain	Chattahoochee					.10							.05				1.10	.40						.10		.25		.31					2.31
Louisville	Ogeechee					.28												1.32						.12				.16					1.88
Lumber City‖	Ocmulgee												T.	.46	.04		*	.24	.56		*	.06		*	.20		*	.08	.26				1.90
Lumpkin‖	Chattahoochee					.14						T.	.97				4.15							.24	.32	T.		.18					6.00
Macon	Ocmulgee												.27	.13			1.39	1.29						.11		.05		.22					3.46
Marshallville‖	Flint						T.						.09	.27			*	3.25			T.	T.		.18		.16		.14	.14				4.13
Mauzy	Suwanee												.41	.14				.93		.11	.1			19				.20	.02				2.01
Milledgeville‖	Oconee					*	.02						*	.07			*	2.62				T.		T.	.08	.08	*	.02	.11				3.00
Millen‖	Ogeechee													T.				.25	.40	.10								.15	T.				0.90
Montezuma‖	Flint					*	.12						*	.62			*	2.08			*	.06	*	.08	*	.42		*	.28				3.66
Monticello‖	Ocmulgee												*	.32	.21		*	3.05			*	.05		.05	.04	.09	.06	*	.30				4.17
Morgan	Flint																																
Newnan‖	Chattahoochee					*	.22						*	.67			*	3.35				*		.14		.57			.18				4.38
Oakdale‖	...do					*	.13						*	.22	.32		*	*	2.52							.43			.33				3.95
Point Peter	Savannah													.60			*	2.50								T.		.20					3.30
Poulan	Suwanee												1.17	.05				1.06	.25						.02			.22					2.77
Putnam	Flint												.81				1.20	2.65										.50					5.16
Quitman‖	Suwanee												*	.26			*	.78									*	T.	.39				1.43
Ramsey	Coosa					.03	.05						.05	.05		.68	1.71	.58	.02					.13		.60		.35					4.25
Resaca‖	...do																																
Rome‖	...do		T.	T.		*	.22					*	.14	.36		*	.26	1.38					*	.06	*	.20	*	.04	.10				2.76
St. George	St. Marys													T.					.60	.02					T.	.15			.32				1.09
St. Marys	...do												T.					.96						T.		.08		.14					1.18
Savannah	Savannah						T.						.03	.37			T.	.73		.09				T.		.06		.09					1.37
Statesboro‖	Ogeechee						T.				T.		.17	.07				.76	.15					.19			.07	.06					1.47
Talbotton	Chattahoochee						.04						.31	.03			1.70	2.50				.15		.16	.02	.16		.41					5.48

TABLE 2.—*Daily precipitation for April, 1910. District No. 2*—Continued.

Stations.	River basins.	Day of month.																												Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Georgia—Cont'd.																																	
Tallapoosa[]	Coosa																																
Thomasville	Ocklockonee					T.							.59	.18				.82	.01		T.			T.	.03			.09				1.72
Toccoa[]	Savannah						.10							.10			.18	1.90								.15	.06	.05	.10				2.64
Valdosta[]	Suwanee													T.				T.	.55										.22				0.77
Valona	Ogeechee																	1.40	.25					.50				.38					2.53
Washington[]	Savannah													T.			*	2.12				T.		T.	T.	T.			T.				2.12
Waycross[]	Satilla					*	.06						*	.03				*	.72	.04				*	.26	.08	*	.07	.11				1.37
Waynesboro[]	Savannah						.04							.02	T.			T.	1.10						.11				T.				1.27
West Point[]	Chattahoochee					*	.40						*	.50			*	2.10			*	.05	*	.07		.08	.04	.04	.14				3.42
Woodbury[]	Flint					*	.47						*	.66			*	3.96								.15	.04	*	.27				5.55
Florida.																																	
Apalachicola	Coast												.46	.14				1.09						T.		.32		.13					2.14
Arcadia	Peace Creek																		.11						.13								0.24
Archer	Waccasassa																	.70							T.	.75		.28					1.73
Avon Park	Kissimmee						T.												.08						.50	.03							0.61
Bartow[]	Peace Creek							.14																	.36	.09			.07				0.66
Blountstown[]	Apalachicola												.25							1.60			.21										2.06
Bonifay	Choctawhatchee					.20							T.	2.90			1.75							T.	.15								5.00
Brooksville	Withlacoochee						.34																		.07				.12				0.43
Carrabelle	Coast																																
Cedar Keys	...do																	.40								.20		.09					0.69
Clermont	Lake																		.33									.11					0.44
De Funiak Springs	Choctawhatchee					.80								3.00			1.50	.75						T.	.25								6.30
De Land	St. Johns						.03						.01						.23							.02			.32				0.61
Eustis[]	Lake						.08						.05					.34										.16					0.63
Federal Point	St. Johns												T.	.22				.56	.16							T.			.16				1.10
Fenholloway	Fenholloway																																
Fernandina	Coast																	2.54								.17		.22	.03				2.96
Fort Meade	Peace Creek						.16												.04								T.						0.20
Fort Myers	Caloosahatchee							T.											T.			T.			.25	.37							0.62
Fort Pierce	Indian													.28																			0.28
Gainesville[]	Lake						T.						.01						.60			T.			T.	.45			.43				1.49
Grasmere	...do						.09								.05				.80										.10				1.04
Hilliard	Nassau												T.					.58	T.					T.	.15			.22				0.95
Huntington	St. Johns						.05						.01					.08	.01					.01	.51	.01			.32				1.00
Hypoluxo	Lake						.34													1.57													1.91
Inverness[]	Withlacoochee																		.17									.07					0.24
Jacksonville	St. Johns						.01						.03		T.			.10						.04		.07		.35					0.60
Jasper[]	Suwanee					.40												.46										.21					1.07
Johnstown	...do																	.70							.06	.12		.03	.12				1.03
Jupiter	Coast						.01												.37	.10								.01		.02			0.51
Key West	...do																				T.	T.				.03							0.03
Kissimmee	Kissimmee						.10																		.21	.05							0.36
Lake City	Suwanee						T.							.10					.50						T.	.23			.16				0.99
Live Oak[]	...do					.10								.20				.05						.60		.15		.25					1.35
Macclenny	St. Marys																	1.05	.03										.50				1.58
Madison[]	Suwanee						.33							.23	T.			.03	1.05			T.			.60	.15			.06				2.45
Malabar	Indian			.03										T.					.09						.12			.04					0.28
Manatee	Manatee						.25											.28		T.				.40	.02	.08							1.03
Marianna[]	Apalachicola						.08							.99	.17	.33	T.	1.76		.12						.22							3.67
Merritts Island	Indan						.05											T.	.09						.02	.01			.13				0.30
Miami	Coast						.31												.85						T.								1.16
Middleburg	St. Johns						.10												.15							.30			.35				0.90
Milligan	Yellow													.03			1.33								.31								1.67
Molino	Escambia					.72											1.62																2.34
Monticello	Aucilla												.30	.25				.40															0.95
Mount Pleasant	Apalachicola												.28	.27				1.30						.10		.30		T.					2.75
Newport	St. Marks												T.	T.			T.																T.
New Smyrna	Coast							.12											.10							.08			.30				0.60
Ocala[]	St. Johns																																
Orange City	...do						T.											.57										.15					0.72
Orlando	...do						.17																		.04	.06			.11				0.38
Pensacola	Coast					.10							.21				.61	.05							.06								1.03
Plant City	Hillsboro						.27																		.65	.25							1.17
Rockledge	Indian																												.15				0.15
Rockwell	Withlacoochee						.25																						T.				0.25
St. Andrew	Coast					.02							.15	.42				1.25							.28	.02							2.14
St. Augustine	...do						.10						.64	.45	.05			.27	.13							T.			.18				1.82
Sand Key	...do																																
St. Leo	Withlacoochee						.12											.28	.18							.09			.05				0.72
Satsuma Heights	St. Johns						.02						.01					.49						.13		.03		.31					1.01
Switzerland	...do						.16						.17					.35						.23	.10			.26					1.27
Tallahassee[]	Ocklocknee					T.								1.25	.90			.60							.20	.09		T.					3.04
Tampa	Coast						.30											.01						.57	.02	.34		.03					1.27
Tarpon Springs	...do						T.											.07								.09			.07				0.23
Titusville	Indian		.03			.01	.15																			.15			.16				0.50
Wausau	Choctawhatchee					T.							.15	2.02			.60	2.40	T.						.23								5.40
Alabama.																																	
Alaga[]	Chattahoochee						1.46							.96	2.60			2.20		T.					T.	.16		.12	T.				7.50
Anniston	Coosa				T.		.27					T.	1.01	.01		T.	1.55	T.			T.			.03	.10	.01	.02	.03	.18				3.21
Ashville	...do	T.					.18					T.	.34	.75			1.54	.06		T.	T.			.03	T.	T.	T.	.15					3.07
Auburn	Tallapoosa						.38						.47				1.50	.78			T.			.33		.09		.21					3.76
Benton[]	Alabama						.71							.72				.62						.28		T.							2.33
Bermuda	Escambia						.27						.19	.15			3.81	.23						.41			T.							5.06
Birmingham	Black Warrior	T.					.30						.77		T.	.22	1.18		T.				.06	T.		.01	T.						2.54
Calera[]	Coosa						.05	.39					.32	.47			.70	1.10								.10	T.						3.13
Camp Hill	Tallapoosa						.65	.07					1.46	.08			1.56									.25		.15					4.22
Cedar Bluff	Coosa				.10		.10						.30				.44	1.01								T.							1.95
Citronelle	Alabama						.52										2.03	.17						.04									2.76
Clanton[]	Coosa		.02				.53						.04	.38			.39	2.15								.08							3.59
Cochrane[]	Tombigbee						.32										.60	1.60								T.							2.52
Cordova	Black Warrior	T.					.75						.04				1.80						.10		T.	T.							2.69
Cullman	...do				T.		.32					T.	.04			T.	1.90							.12		T.	.03						2.41
Dadeville[]	Tallapoosa						.55						.02	1.22				1.54				T.		.15		T.	.10	T.	.15				3.73
Daphne	Coast						.17									T.	1.45	.30															1.92
Demopolis[]	Tombigbee		1.90				.90	.02					.04	.20			1.06	.68						.06			T.							4.86
Eufaula[]	Chattahoochee						.12						.02	1.94		T.		4.48						.20	.06	.08	T.		.14					7.04
Evergreen[]	Escambia					2.00							.15	.95				2.50						.40										6.00
Fayette	Tombigbee																																
Flomaton	Escambia					.06								.33			1.40	.42								T.							2.21
Fort Deposit[]	...do						1.14						T.	.40				3.50						T.		T.							5.04
Gadsden[]	Coosa		.04				.18						.06	.96			.22	1.28						.04	.14				.06				2.98
Goodwater[]	...do						.60				.50						1.70							.15		T.		.05	.10				3.10
Greensboro[]	Black Warrior	.32				.45							.32				.55	.54						.02		T.							2.20

TABLE 2.—*Daily precipitation for April, 1910. District No. 2*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Alabama—Cont'd.																																	
Greenville‖	Escambia						.66					.30						6.47			.10											7.53
Hamilton	Tombigbee			T.		.35											1.30								T.						1.56
Highland Home	Escambia					.92							.58				2.48	.45							T.						4.43
Livingston‖	Tombigbee					.28								.61			.96	.86						.06								2.77
Lock No. 4	Coosa					.48							.41	.88			2.00	.10								.08		.10				4.05
Lucy	Chattahoochee						1.10						.73	3.34		T.	T.	2.04			T.			T.		.04		.14				7.39
Maple Grove	Coosa	.18	T.			.32						.10	1.58		T.	.10	1.00		T.				.14	T.	T.	T.	.03	.19				3.64
Mentone‖	...do				T.		T.										1.75	.80								T.						2.55
Milstead‖	Tallapoosa						.56							.62				1.66						.16								3.00
Mobile	Coast					.15							T.		T.	T.	1.39									T.						1.54
Montgomery	Alabama					.62							.70	.12	T.	T.	.98				T.			.24	T.	T.	T.	T.				2.66
Newbern	Black Warrior	.01		T.		.52							.41				1.37						.05			.04						2.40
Oneonta	...do	.10	.20			.33						T.	.03	.05			1.48	.40								.10						2.69
Opelika‖	Tallapoosa			..										.31				2.00						.15	T.	T.	.10	.10	.20			2.86
Ozark‖	Coast						.50							.70	.15	.23		4.40														5.98
Prattville	Alabama					.84							.53	.15			.65				T.			T.		T.	T.					2.17
Pushmataha‖	Tombigbee		.22			.36						T.	.02				1.50	.97						.02		T.						3.09
Selma‖	Alabama					.18	.98						.72	.44		T.	.50	1.64						.14	T.	.02	T.					4.62
Spring Hill	Coast																															
Talladega	Coosa					.23							.52				1.00	1.11						.06		T.		.14				3.06
Tallassee‖	Tallapoosa						.67							.36				1.27				T.		.14		T.	.03		.09			2.56
Thomasville‖	Tombigbee					.43	.10										14	.30						.25			T.					1.22
Troy	Escambia					.89							.39	.41		3.53	.37							T.		T.	T.					5.59
Tuscaloosa‖	Black Warrior		.11			.37							T.	.53			.78	1.00						.04		.10	T.					2.93
Tuskegee	Tallapoosa					.56							.48											.11		T.						1.15
Union Springs‖	...do						.85						T.	.55				4.25						.08	T.	T.	T.		.06			5.97
Uniontown	Black Warrior					.59							.60				2.66							.07			T.					3.92
Valley Head	Coosa		T.			T.						T.	T.			1.05	1.50	.35						T.		T.		.27				3.17
Wetumpka‖	...do						1.30							.57				.93						.11			T.					2.91
Mississippi.																																
Aberdeen‖	Tombigbee			.10		1.08						T.	.06			.12	1.20	.19						.24		.02						3.01
Agricultural College	...do		.75			.60						.05	T.			.20	1.30						.12			T.						3.02
Bay St. Louis	Coast					.12			T.						T.	T.	.56															0.68
Biloxi	...do					.05											.47	.23														0.75
Booneville	Tombigbee		.32										.17		.10	1.63	.70						.38		T.	.04	.01					3.35
Brookhaven‖	Pearl		.52			.39					T.						5.06	.05						T.		T.	T.					5.96
Columbia‖	...do		1.04			.38								.06			1.68	.04								T.						3.20
Columbus‖	Tombigbee			.34		.60							.04	.04			1.44	.26						.22		T.	T.					2.94
Crystal Springs‖	Pearl		.60			.40							.09				3.70	.03								T.						4.82
Edinburg	...do	T.		.10		1.34						.03	.11				2.26	.22						.17	T.	.01	.01					4.25
Enterprise‖	Chickasawhay		.12			.08						T.	.01				1.44	.32						.14								2.11
Fulton‖	Tombigbee			.10		.90							.02			.0	.72	.28														2.72
Hattiesburg‖	Leaf		T.			.18											T.	.62														0.80
Haslehurst‖	Pearl		.61			.53					T.	.02	.09			.01	4.02	.05								.04						5.37
Jackson	...do	.15	.11			.34						.06	.07			.12	4.19						.14	.02	T.	T.						5.20
Lake‖	...do		1.09			1.00					T.	T.					4.30	.20							T.	T.						6.59
Lake Como	Leaf	.13															2.03								T.							2.16
Laurel	...do	.10	.08			.58					T.	T.	.14			T.	.90	T.								T.						1.80
Leakesville‖	Chickasawhay					.20												2.86														3.06
Louisville	Pearl		.11			1.10							.11				1.63								T.	.09						3.04
McNeill	...do					.15											.27															0.42
Macon‖	Tombigbee		T.	T.		1.43							T.	T.			2.00	.47						T.		T.	T.					3.90
Magnolia	Pearl	.73			T.	.17					T.		.05			.10	1.30							T.		.10						2.45
Meridian	Chickasawhay	.04				.13					T.	T.	.11		T.	T.	1.95						.03			T.						2.26
Merrill‖	Pascagoula					.30										.10		.62						T.								1.02
Monticello	Pearl	.09	T.			.43										T.	5.35															5.87
Okolona‖	Tombigbee			.05		1.00							T.			.25	.65	.30						.05		T.	.05					2.35
Pascagoula	Coast																															
Pearlington	Pearl					.19									.10		1.00															1.29
Porterville	Tombigbee	.10				.25						T.	.45				1.83							.18		T.						2.81
Shubuta‖	Chickasawhay		.02			.36							.02				.90	.48						.06								1.84
Waynesboro‖	...do		.15			.90							T.	.15			.60	.30														2.10
Woodland	Tombigbee		.17		.07	.98						.10			.11	.17	1.11									.07						2.78
Louisiana.																																
Pearl River	Pearl					.12	.01		T.	T.	T.	T.	T.			T.	T.	.04														0.17

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 2, South Atlantic and east Gulf States.*

Date.	Virginia.										North Carolina.											
	Lynchburg.		Norfolk.		Richmond.		Saxe.		Charlotte.		Edenton.		Fayetteville.		Hatteras.		Newbern.‖		Raleigh.		Reidsville.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	72	36	74	40	69	34	73	36	69	37	75	43	77	40	69	52	75	46	73	40	74	36
2	74	37	76	42	72	36	76	38	72	38	78	44	80	42	72	54	78	48	76	42	78	38
3	84	44	84	48	82	44	84	44	82	44	84	48	84	48	76	58	82	52	82	48	84	44
4	85	48	86	52	84	48	86	48	84	48	86	52	86	52	78	60	84	56	84	52	86	48
5	84	52	84	56	82	52	84	52	82	52	84	56	84	56	78	62	84	58	82	56	84	52
6	78	52	80	56	78	52	80	52	78	52	80	56	80	56	76	62	80	58	78	56	80	52
7	76	50	78	54	76	50	78	50	76	50	78	54	78	54	74	60	78	56	76	54	78	50
8	78	50	80	54	78	50	80	50	78	50	80	54	80	54	74	60	78	56	78	54	80	50
9	80	52	82	56	80	52	82	52	80	52	82	56	82	56	76	62	80	58	80	56	82	52
10	86	52	86	56	84	52	86	52	84	52	86	56	86	56	78	62	84	58	84	56	86	52
11	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
12	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
13	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
14	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
15	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
16	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
17	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
18	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
19	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
20	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
21	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
22	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
23	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
24	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
25	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
26	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
27	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
28	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
29	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
30	86	54	86	58	84	54	86	54	84	54	86	58	86	58	78	64	84	60	84	58	86	54
Mns	65.6	46.8	69.6	50.5	70.1	46.6	73.2	45.2	71.9	50.8	75.9*	47.9*	76.8	49.8	68.4	56.2	74.2	48.6	71.5	50.5	73.4	47.9

Date.	South Carolina.										Georgia.											
	Columbia.		Conway.‖		Georgetown.		Greenville.‖		Newberry.		Society Hill.		Trial.		Adairsville.‖		Albany.‖		Atlanta.		Augusta.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	86	52	84	52	86	52	84	52	86	52	84	52	86	52	84	52	86	52	84	52	84	52
2	88	54	86	54	88	54	86	54	88	54	86	54	88	54	86	54	88	54	86	54	86	54
3	88	56	86	56	88	56	86	56	88	56	86	56	88	56	86	56	88	56	86	56	86	56
4	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
5	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
6	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
7	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
8	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
9	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
10	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
11	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
12	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
13	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
14	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
15	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
16	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
17	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
18	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
19	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
20	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
21	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
22	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
23	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
24	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
25	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
26	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
27	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
28	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
29	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
30	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	88	58	86	58	86	58
Mns	75.3	51.9	77.2	51.1	75.8	55.6	72.1	47.5	76.3	48.6	75.0	51.1	77.1	49.0	73.7†	48.0†	79.2	51.5	69.3	50.8	73.3	51.4

Date.	Georgia.											
	Dahlonega.		Macon.		Savannah.							
	Max.	Min.	Max.	Min.	Max.	Min.						
1	84	52	86	52	86	54						
2	86	54	88	54	88	56						
3	86	56	88	56	88	58						
4	86	58	88	58	88	60						
5	86	58	88	58	88	60						
6	86	58	88	58	88	60						
7	86	58	88	58	88	60						
8	86	58	88	58	88	60						
9	86	58	88	58	88	60						
10	86	58	88	58	88	60						
11	86	58	88	58	88	60						
12	86	58	88	58	88	60						
13	86	58	88	58	88	60						
14	86	58	88	58	88	60						
15	86	58	88	58	88	60						
16	86	58	88	58	88	60						
17	86	58	88	58	88	60						
18	86	58	88	58	88	60						
19	86	58	88	58	88	60						
20	86	58	88	58	88	60						
21	86	58	88	58	88	60						
22	86	58	88	58	88	60						
23	86	58	88	58	88	60						
24	86	58	88	58	88	60						
25	86	58	88	58	88	60						
26	86	58	88	58	88	60						
27	86	58	88	58	88	60						
28	86	58	88	58	88	60						
29	86	58	88	58	88	60						
30	86	58	88	58	88	60						
Mns	70.6	47.5	74.4	50.4	76.0	55.3						

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 2*—Continued.

Date.	Georgia.						Florida.																	
	Thomasville.		Waycross.‡‡		West Point.‡‡		Avon Park.		Fort Myers.		Gainesville.‡‡		Jacksonville.		Jupiter.		Key West.		Miami.		Orlando.		Pensacola.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	87	54	88	56	86	55	91	55	83	60	89	59	86	60	78	63	79	68	81	66	90	54	74	63
2	89	55	91	55	87	55	90	56	87	57	88	60	87	64	79	68	80	68	82	70	91	56	76	64
3	86	53	90	57	87	54	87	56	84	61	86	62	85	62	78	68	81	70	83	70	88	58	75	64
4	79	56	84	55	82	51	86	58	86	64	84	64	83	64	78	70	82	71	82	71	87	62	74	66
5	78	54	83	53	82	51	84	57	84	63	84	64	84	64	78	70	82	71	82	71	86	62	74	66
6	75	54	86	53	84	47	86	55	81	63	83	64	86	64	79	68	83	71	83	71	86	62	74	66
7	78	46	78	44	74	44	84	54	83	62	84	64	84	64	79	68	83	71	83	71	86	62	74	66
8	83	44	83	44	74	44	84	54	83	62	84	64	84	64	79	68	83	71	83	71	86	62	74	66
9	86	46	86	46	78	46	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
10	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
11	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
12	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
13	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
14	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
15	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
16	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
17	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
18	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
19	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
20	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
21	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
22	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
23	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
24	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
25	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
26	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
27	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
28	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
29	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
30	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
31	86	48	86	48	78	48	86	56	84	62	86	64	84	64	79	68	83	71	83	71	86	62	74	66
Means	78.7	50.9	79.6	52.3	75.0	49.0	85.2	56.0	81.8	58.4	81.7	55.5	78.8	57.0	78.8	61.6	79.6	68.9	83.4	62.0	83.8	66.1	72.5	59.0

Date.	Alabama.												Mississippi.											
	Anniston.		Bermuda.		Birmingham.		Eufaula.‡‡		Mobile.		Montgomery.		Tuscaloosa.‡‡		Uniontown.		Columbus.‡‡		Hattiesburg.‡‡		Jackson.		Meridian.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	80	55	84	57	81	60	83	55	77	61	79	56	82	55	81	56	82	55	84	56	82	55	81	55
2	82	56	86	58	83	63	85	58	78	63	81	58	84	56	83	57	84	56	86	58	84	56	83	56
3	85	58	86	61	84	63	86	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
4	74	57	84	63	84	61	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
5	74	48	86	48	84	55	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
6	70	44	87	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
7	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
8	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
9	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
10	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
11	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
12	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
13	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
14	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
15	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
16	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
17	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
18	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
19	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
20	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
21	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
22	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
23	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
24	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
25	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
26	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
27	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
28	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
29	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
30	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
31	72	44	84	52	84	47	84	58	80	63	83	58	85	56	84	57	85	56	86	58	85	56	84	56
Means	72.2	47.7	78.2*	48.8*	72.3	50.1	75.3	48.0	75.7	57.7	74.8	52.5	74.8	48.3	76.6	50.6	74.6	47.7	79.6*	51.1	76.9	50.9	74.0	50.2

Climatological Data for April, 1910.

DISTRICT No. 3, OHIO VALLEY.

FERDINAND J. WALZ, District Editor.

GENERAL SUMMARY.

The weather current during the month of April, 1910, was anomalous to a remarkable degree. During the first half of the month, with the exception of a few days, the temperature was considerably above normal, while during the whole of the latter half, with the exception of the last 2 days, there was experienced the coldest and altogether the most wintry weather that has occurred so late in the season in the Weather Bureau history of large portions of this district. The unusually warm weather that prevailed through March and continued until the middle of April had advanced the season 2 to 3 weeks ahead of the conditions usually reached by the middle of April. That is, farming operations, crops, fruit, tree foliage, garden truck, and vegetation in general were in about the condition usual the first part of May. Suddenly the weather changed and there persisted for 10 or 11 days weather so severe in character as to be comparable with the normal for the first 10 days of March. In effect, May was turned back to March. During the period 17th to 28th freezing temperatures, heavy frosts, and considerable snow occurred in all parts of the district, extending even to the southern limits and beyond.

The freezing temperature did immense damage to fruits and vegetation of all kinds, and the stormy weather greatly interfered with farming operations. Reports of the extent and estimates of the amount of damage done vary widely, and while in some localities the injury suffered was much greater than in others, yet the damage was widespread and the fruit crop and garden truck was materially cut down in nearly all parts of the district. Extracts from reports of section directors giving summaries of the damage done in the several States are as follows:

North Carolina.—Practically all unprotected vegetables were killed or seriously injured. It is estimated that the fruit crop, principally apples, which had been very promising, was damaged about 50 per cent.—*Lee A. Denson, Section Director.*

Alabama.—Temperatures as low as 26° occurred on the 25th. The very cold weather of the 24th to 26th did some damage to crops, and in some cases necessitated replanting.—*Patrick Smyth, Section Director.*

Tennessee.—The frost and cold weather the latter part of the month were very damaging to the fruit crop, gardens, and early planted corn, but the injury was confined mostly to limited areas and was not generally disastrous.—*Roscoe Nunn, Section Director.*

Kentucky.—Considerable damage was done to the fruit crop, tobacco plants, wheat, oats, and all garden truck by the wintery weather the latter part of the month, although not so extensive and serious as first reported. Local cloudiness and wind helped materially to mitigate the effects of the severe cold in some localities during the most critical period of the cold spell.—*Ferdinand J. Walz, Section Director.*

Illinois.—The freeze of the 23d and 24th, attended by a snowstorm, resulted in the greatest disaster to fruit, gardens, and shade trees in the history of the service in this State. The injury was augmented by reason of the unduly advanced stage of vegetation.—*William G. Burns, Section Director.*

Indiana.—The cold spell caused extensive damage to early fruits and vegetables, but the loss is probably not as great as at first estimated. The best information obtainable seems to indicate that the damage to hardy fruits was quite small, and that the cereal crops were not injured at all.—*Verne H. Church, Section Director.*

Ohio.—The damage to fruit and vegetables by the freezing weather is a matter that State authorities still differ widely over, but it seems reasonable to suppose that the fruit crop prospects have been cut down considerably.—*Montrose W. Hayes, Section Director.*

In West Virginia and western Pennsylvania there was no serious damage from the frosts and cold weather, as vegetation was not so far advanced as in other parts of the Ohio Valley.

TEMPERATURE.

The average temperature for the month was about normal over most of the district. It was from 2° to 4° above normal in the northeastern portion and from 1° to 2° below normal in the southwestern portion. The range and distribution of temperature during the month, however, were decidedly abnormal. The unusually warm weather that prevailed during the whole of March continued during the first 5 days of the month, when the average daily temperatures were from 8° to 20° above normal in practically all parts of the district, and maximum temperatures ranged from 70° to 85°.

An area of high pressure, attended by a decided cool wave, overspread the central valleys during the 7th and 8th, and carried the frost line well into the Ohio Valley, with freezing temperatures over the northeastern portion, and minimum temperatures between 32° and 40° in the other portions. Following this short cool period the weather was again unseasonably warm until about the 16th, although the excess in daily temperature was not so large, as a rule, as during the first part of the month. From the 17th to 28th, inclusive, unusually cold weather prevailed. During this period, especially about the 23d to 25th, the average daily temperatures ranged from 10° to 27° below normal and minimum temperatures of from 21° to 32° were registered generally in the district. In Tennessee the temperature registered as low as 24°; in Kentucky, 23°; in Indiana, Illinois, and Ohio, 21°; in North Carolina, 22°; in Georgia, 29°. In Ohio and the more easterly portions of the district the lowest temperatures for the month were recorded during the cool wave at the end of the first decade. The cold weather ended abruptly on the 28th and the last 2 days of the month were unusually warm, day temperatures again registering between 75° and 90°.

PRECIPITATION.

The droughty conditions which largely prevailed at the beginning of the month, on account of the extremely small amount of precipitation during the whole month of March, were considerably ameliorated by showers attending a general storm, which moved over the central valleys in the period from the 2d to the 7th. Fair amounts of rainfall were received in this period in nearly all parts of the district. Generous rains accompanied another general disturbance which passed over the central valleys the 12th and 13th. This rain, however, did not reach the northeastern part of the district. From the 15th to the 27th generally stormy weather obtained and precipitation either in the form of rain or snow, occurred somewhere in the district practically every day, being quite heavy on the 15th and 16th over portions of the Cumberland and Tennessee watersheds. Amounts ranging from 2.50 to 6.94 inches in 24 hours occurred in southwestern Tennessee, northwestern Alabama, and western North Carolina. The section director at Nashville, Tenn., reports as follows:

A notable feature of the month was the heavy rainfall of the 14–16th, attended by severe local storms, which occurred over the central and southwestern counties. Thirteen stations, mostly on the lower Tennessee River watershed, recorded excessive rainfall. The heaviest 24-hour amount ever recorded in the State in April (records for the last 27 years) occurred on the 15th at Waynesboro, where 6.94 inches fell.

Considerable snow occurred in nearly all parts of the district on the 24th and 25th. Amounts ranging from 2 to 4.5 inches occurred as far south as Georgia and east to the Appalachian Mountains, and 5 to 7 inches occurred in the western portion of Kentucky and parts of Tennessee. Light snow occurred in many places in the period 18th to 23d.

Hail occurred in many portions of the district on the 4th, 5th, 18th, and 19th.

Thunderstorms were frequent in the period 3d to 5th and from the 11th to the 16th. Severe wind squalls attended some of these thunderstorms, doing more or less damage locally.

The precipitation for the month was greatest and generally above normal in the southwestern part of the district, over an area embracing western Kentucky, western Tennessee, and the extreme northern portion of Alabama. Over this area the amount was generally from 4 to 6 inches, while at a few places in southwestern Tennessee it was from 7 to 9 inches. In the extreme southern portion of West Virginia there was a small area over which 6 to 9 inches occurred. Over the extreme western portion of Pennsylvania, considerable of Ohio, in north-central Indiana, and the upper Wabash basin of Indiana and Illinois the amounts were less than 3 inches. Over the remainder of the district the amounts ranged between 3 and 5 inches.

MISCELLANEOUS.

A local storm with decided tornadic characteristics swept over the eastern portion of Youngstown, Ohio, about 2:30 p. m., April 4. Many buildings were unroofed, several houses destroyed, and 12 persons seriously injured by the storm. The damage to property is estimated at between $50,000 and $100,000.

In the afternoon of April 5 a severe thunderstorm passed over Central City, Ky., wrecking several houses and otherwise doing considerable damage. This storm also had tornadic characteristics.

During the 15th and 16th severe thunderstorms, attended by destructive wind squalls and lightning, were quite general over the western portions of Kentucky and Tennessee. These storms were accompanied in several localities by unusually heavy hail, being very destructive to crops and window glass. The heavy downpours of rain, which also attended these storms, caused floods in the small rivers and local streams, resulting in many washouts. Railroads, highways, and crops suffered extensive damage.

April 15, during a heavy thunderstorm, 2 barns were struck and destroyed by lightning, 1 child was killed, and 2 adults badly stunned in Jackson County, Ala. April 16, during a heavy electric storm, 3 valuable thoroughbred horses were killed at Churchill Downs, near Louisville, Ky. April 23 a severe wind and rain storm did considerable damage at Gallatin, Tenn.

Forest fires raged during the early part of the month—until extinguished by rains—in eastern and south-central Kentucky and portions of western Pennsylvania. In Blount and Sevier counties, Tenn., 30,000 acres of timber land were burnt over and every vestige of living vegetation destroyed, entailing a loss of $100,000 and 2 lives.

During the latter part of March and the first week of April the bank of the Mississippi River between Wickliff and Fort Jefferson Landing, Ky., caved in to such an extent that the river now runs at the foot of a hill that formerly was half a mile from the east bank of the river.

(Continued from March Review.)

THE WORK OF THE WATER RESOURCES BRANCH OF THE UNITED STATES GEOLOGICAL SURVEY IN THE OHIO RIVER VALLEY.

By A. H. HORTON, Engineer, U. S. Geological Survey.

In June, 1908, the Water Resources Branch of the United States Geological Survey established an office at Newport, Ky. Newport is directly across the river from Cincinnati, Ohio. The office is located on the second floor of the Newport post-office.

This office was established for the purpose of studying the flow of the Ohio River and its tributaries, especial attention being given to the main tributaries and, as far as funds would allow, to study the flow of the main Ohio. It is the intention to make intense studies covering a period of 5 to 10 years of all the important tributaries, with the idea that when these studies are concluded the entire drainage basin of the Ohio River will be covered and there will be no stream of any importance but that there will be data available with reference to its flow, or information at hand whereby its flow can be determined with sufficient accuracy for all practical purposes in case no data have been obtained on that particular stream. At the end of the period of 5 to 10 years it is expected that enough data will have been obtained so that a majority of the gaging stations can be discontinued and other sections of the country will be covered in the same way. Ultimately the whole United States, or at least that part outside the arid or semiarid region will be thoroughly covered with run-off data.

From a comparison of a few long-time records of run-off of eastern streams, which are available, it has been found that the mean annual run-off for a single year may vary as much as 50 per cent from a 20 to 30 year mean; that the mean of a 5-year period may vary by 20 per cent; and that the mean of a 10-year period varies less than 10 per cent from the 20 or 30 year mean; that also during a 10-year period there occurs a year of average high and low water. While this low and high water may not be the extreme, it gives, nevertheless, the mean conditions which may be expected, with the exception of the abnormal year which generally occurs once or twice in a generation and is a matter of record or tradition in the locality in which it occurs. It is believed, therefore, that a record of the run-off of any eastern stream, extending over 10 years, will give a fair idea of the flow that may be expected at any time.

With this idea in view some 25 stations were established in the drainage basin of the New and Kanawha rivers in 1908, and are being maintained at present. It is expected that before the end of the 10-year period it will be found that many of these stations can be discontinued, for it is thought that studies of the data will show that it will be possible, by maintaining a few stations on the main river and on the more important tributaries, to obtain the run-off of any stream with sufficient accuracy from that actually measured at a few selected stations in the same drainage basin.

At the present time gage heights extending over a period of a year and a half have been obtained at these stations and a number of measurements have been made at medium and low water stages; measurements of high water will be obtained this coming spring. As soon as time and funds allow other tributaries will be taken up and studied in a similar manner until the entire basin of the Ohio is covered. Besides the work on the Kanawha River, stations are maintained on the tributaries that form the Monongahela and stations are maintained in cooperation with the United States Weather Bureau on the Muskingum, Great Miami, Wabash, and East Branch of White rivers.

Measurements of the Ohio have been made at Wheeling, Marietta, Cincinnati, Evansville, and Louisville, enough measurements having been made at Wheeling, Marietta, and Cincinnati to construct discharge curves for the Ohio at these points; at the other places only 1 or 2 measurements were made.

Measurements of the Ohio at Cincinnati were made at gage heights of about 3 feet and 54 feet; the record low water and high water stages are about 2 feet and 71 feet, respectively. The minimum flow is about 5,000 cubic feet per second; the maximum is, approximately, 700,000 cubic feet per second.

The State of Illinois, in cooperation with the United States Geological Survey, has had established and is maintaining about 20 gaging stations in that State. The State pays for all the field work and part of the computations, the work being done under the supervision of the Newport office. The work has been carried on for about 2 years and much valuable information has been collected which will be of use in land reclaiming, flood protection, and storage.

The United States Weather Bureau, in connection with extensive studies of evaporation being made at the Salton Sea in southern California, has established, with the cooperation of the United States Geological Survey, evaporation stations at various places in the United States. One of these stations is located

at the Cincinnati Water Works at California, Ohio. The apparatus was designed and installed under the direction of the Newport office. The evaporation from 2 pans, 1 floating on the surface of the reservoir and the other resting on a platform 10 feet above the reservoir, has been measured every 4 hours during the past season. These measurements were made under the direction of J. W. Ellms, superintendent of the filter plant. From the data collected at Salton Sea and at other points in the United States the Weather Bureau expects to obtain a comparatively simple formula with but few factors for deriving the evaporation from a body of water anywhere.

In addition to the work being done in the basin of the Ohio under the Newport office, run-off data on the Tennessee River are being obtained under the Atlanta office, and data are being collected on the Allegheny River, under the direction of the Albany office.

Besides the above work which is being carried on now, data have been collected during recent years on quite a number of other streams tributary to the Ohio. These data may be consulted in the published reports.

There are various uses to which run-off data may be put. One of the best illustrations of the direct economical value of this work is the water-power development in the Southern States. In this section, prior to starting the work of the Water Resources Branch, it was impossible to interest capital in water-power schemes, owing to the general impression that southern streams went dry in summer and flooded everything in spring. Based upon the data furnished by the Geological Survey, there are now going on in all parts of the south extensive power developments that will soon make that section a great manufacturing center that will rival New England.

The Austin (Tex.) Dam failed financially before the structure itself was destroyed because there were no data available in regard to the low water flow of the stream on which it was located; the loss entailed equaled the amount spent by the survey on stream gaging work during the first 10 years.

The most striking illustration of the value of stream gaging data is furnished by the Reclamation Service which is turning millions of acres of valueless land into farm land, worth in some cases over $1,000 per acre. The rapidity with which this Service was organized and results obtained were due directly to the available data in regard to stream flow which had been collected by the Water Resources Branch of the Geological Survey.

In the Ohio River Valley stream gaging data are of use in studying water supply and pollution problems; water-power investigations, drainage studies, and flood protection. During the summer and fall of 1908 many towns in the Ohio Valley were almost without water for drinking purposes. The population, and therefore the demand for water, is increasing all the time; in many cases the only way of providing water to last over periods of drought is to build reservoirs to hold the flood water that benefits no one and damages many. The only way reservoirs can be built economically is by knowing the necessary capacity which is determined by the available supply during dry spells in the streams from which the supply is taken. Records of the flow are of especial value in cases of this nature and the longer the record the greater the probability of the period of minimum flow being covered.

Water power is a subject of considerable importance in the Ohio Valley. With the continued advance in the improvement in the electrical transmission of power there will be no power site too far from the centers of industry to prevent its economical development. Our supply of coal is being rapidly depleted and the time is approaching when the development of the water power of the country will be an economic necessity. The Ohio Valley is particularly fortunate in having abundant supplies of natural fuel; it is equally fortunate in being supplied with abundant water power. It has been estimated that there is a minimum of 335,000 horsepower in the drainage basin of the Kanawha River alone, and on the Tennessee River above Riverton, Ala., there is a minimum of nearly 1,000,000 horsepower; these two examples indicate what may be expected from the other tributaries. Inasmuch as the amount of water power that may be made available is directly dependent on the flow of the streams, the investigation of the flow becomes a prerequisite in the economical development of water power and long-time records are especially valuable.

Navigation is also a subject of considerable importance in the Ohio Valley. The Federal Government is planning to spend, and has already spent, large sums upon the construction of locks and dams in the Ohio River. It is obvious that the determination of the stream flow is necessary to the intelligent solution of the many problems involved.

The damage from floods in the United States exceeds $100,000,000 annually, and in the year 1908 the aggregate damage, based on reliable data, approximated $250,000,000; a great part of this loss occurs in the Ohio Valley, and a still greater part may be attributed to the flood waters of the Ohio River, for they are a large factor in causing the floods on the lower Mississippi.

Probably the most important use of the stream gaging data collected by the Water Resources Branch of the Geological Survey in the Ohio River Valley is to furnish the data upon which to base studies and plans for controlling the floods of that river.

When run-off data covering the entire basin of the Ohio have been collected there will be available information from which plans and estimates can be made which will indicate beyond any doubt the feasibility of constructing a reservoir system on the tributaries of the Ohio River for controlling the floods. . If the data verify and strengthen the claim that it is possible to reduce the heights of extreme floods from 10 to 20 feet by means of reservoirs, the cost of constructing such a system would seem to be a subject of minor consideration. For it would appear, if it were known beyond a reasonable doubt that floods on the Ohio River would not rise above a certain stage, that the increase in the value of the land along the Ohio River for manufacturing sites alone would pay for the cost of such a system of reservoirs. Assuming that manufacturing interests along the Ohio River and its tributaries increase during the next 50 years as they have in the past 50 years, who can predict the loss that would result from a flood similar to the 1884 flood 50 years from now? It is hardly probable that 50 years from now the floods of the Ohio River will still be the menace to manufacturing, agricultural, and navigation interests that they are to-day.

The data being collected by the Water Resources Branch of the United States Geological Survey will undoubtedly form the basis of any feasible scheme whereby the floods of the Ohio River will be deprived of their power of doing harm.

TABLE 1.—*Climatological data for April, 1910. District No. 3, Ohio Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
New York.																				
Allegany	Cattaraugus	1,441	4	49.1	.....	82	5	17	13	56	4.75	.....	1.05	1.9	13	9	8	13	nw.	Charles E. Whitney.
Bolivar	Allegany	1,800	16	49.2	+ 6.2	81	5	16	13	53	5.47	+ 2.87	1.07	1.0	13	7	7	16	sw.	Lowell Andrus.
Franklinville	Cattaraugus	1,598	13	47.9	+ 5.5	81	5	18	13	51	5.07	+ 1.88	0.76	1.0	13	11	4	15	nw.	Dr. John W. Kales.
Olean	....do	.....	2	.....	.....	.....	.....	.....	.....	.....	4.97	.....	1.10	T.	14	.....	.....	.....	w.	John W. Alles.
Pennsylvania.																				
Aleppo	Greene	1,135	9	52.0	.....	84	5	23	8	53	3.10	.....	0.45	1.0	13	9	7	14	sw.	J. S. Hinerman.
Baldwin	Butler	1,404	4	51.0[b]	.....	81[b]	5	27[b]	8	43[b]	3.63	.....	1.20	5.9	12	11[b]	3[b]	14[b]	w.	S. H. Templeton.
Claysville	Washington	1,127	6	53.4	.....	88	5	23	8	55	2.65	.....	0.50	1.0	13	12	3	15	w.	E. T. Buchanan.
Franklin	Venango	955	36	48.8	+ 2.7	81	5	27	13	40	3.30	+ 0.68	1.20	1.0	17	12	9	9	w.	F. E. Dixon.
Greenville	Mercer	950	14	49.6	+ 3.8	82	5	23	13	49	3.92	+ 0.95	1.31	4.0	16	12	2	15	s.	A. M. Orr.
Indiana	Indiana	1,350	13	52.2	+ 3.0	84	5	26[a]	8	43[a]	3.47	− 0.78	0.90	T.	13	12	7	11	s.	Rev. J. M. Welch.
Johnstown	Cambria	1,184	22	.....	.....	.....	.....	.....	.....	.....	4.28	+ 0.47	1.02	.....	18	.....	.....	.....	.....	E. C. Lorents.
Lycippus	Westmoreland	1,420	18	53.1	+ 4.0	85	5	27	8	40	3.89	+ 0.30	1.13	1.4	13	.....	.....	.....	.....	Murray Forbes.
Pittsburg	Allegheny	842	40	52.8	+ 1.8	83	5	29	8	37	2.21	− 0.69	0.68	T.	13	7	9	14	nw.	U. S. Weather Bureau.
Saegerstown	Crawford	1,116	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. G. Apple.
St. Marys	Elk	1,740	12	48.0	+ 4.0	70	2†	22	13	47	3.36	+ 0.04	0.55	3.0	13	9	12	9	.....	Wm. E. Wittman.
Skidmore	Lawrence	1,000	6	50.3	.....	83	5	24	8†	49	3.50	.....	1.40	.....	7	16	2	12	sw.	W. H. Stoner.
Somerset	Somerset	2,250	54	49.3	+ 3.2	84	5	25	8	49	4.89	+ 0.42	1.12	3.2	17	3	13	14	nw.	W. M. Schrock.
Uniontown	Fayette	999	22	52.4	+ 1.8	86	5	30	13	46	2.73	− 0.95	0.50	T.	15	.....	.....	.....	nw.	Wm. Hunt.
Warren	Warren	1,137	21	48.8	+ 4.8	80	5	21	13	46	3.84	+ 0.70	0.66	2.6	16	15	0	15	nw.	Anna Simpson.
Maryland.																				
Deer Park	Garrett	.....	16	49.0[b]	+ 4.2	89[b]	5	20[b]	14	65[b]	3.22[b]	− 0.39	0.50[b]	2.0[b]	13[b]	.....	.....	.....	.....	S. P. Specht.
Grantsville	....do	.....	16	49.2[a]	+ 3.6	80[a]	5	28[a]	8†	43[a]	3.94	+ 0.54	1.20	2.0	12	6	9	14	w.	J. S. Miller.
Oakland	....do	.....	10	48.6	.....	82	5	20	14	56	3.11	.....	0.42	2.6	17	8	13	9	w.	R. E. Weber.
West Virginia.																				
Arbovale	Pocahontas	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Uriah Hevener, jr.
Bancroft	Putnam	.....	6	54.4	.....	87	30	31	8	•6	3.49	.....	0.59	T.	18	10	3	17	sw.	James Hill.
Beckley	Raleigh	2,440	11	51.8	+ 3.5	85	30	20	10	50	9.07	+ 6.14	1.37	0.0	13	14	2	14	w.	John A. Ewart.
Ben's Run	Pleasants	622	9	54.0	.....	85	5†	29	8	48	2.57	.....	0.35	0.5	14	16	9	5	.....	J. D. Riggs.
Bluefield	Mercer	2,563	15	55.3	0.0	80	30	30	19†	43	4.04	+ 0.69	0.69	0.0	14	14	6	10	.....	Norfolk & Western Ry.
Buckhannon	Upshur	1,472	20	52.5	+ 1.8	85	5	25	8	49	2.10	− 2.18	0.30	T.	14	11	4	15	.....	H. A. Darnall.
Cairo	Ritchie	667	8	54.8	.....	86	6	24	8	49	3.05	.....	0.63	0.0	15	3	11	16	w.	Van A. Zevely.
Central Station	Doddridge	900	11	50.6	+ 0.1	87	5	16	8	57	2.67	− 0.93	0.39	1.0	17	6	8	16	e.	G. W. Sherwood.
Charleston	Kanawha	598	24	58.0	.....	87	30	33	8†	39	3.37	− 0.20	0.55	T.	10	13	9	8	w.	R. C. Hewes.
Creston	Wirt	612	10	54.8	.....	88	30	27	8	51	2.68	− 1.41	0.38	T.	17	5	5	20	w.	J. M. Reed.
Cuba	Jackson	544	9	54.0	.....	86	30	24	8	51	2.95	− 0.05	0.72	T.	17	5	18	7	w.	C. T. Perry.
Doane	Wayne	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. Jude.
Elkhorn	McDowell	1,933	18	54.5	+ 1.6	83	30	30	19	43	5.70	+ 2.21	1.64	0.0	13	12	9	9	w.	J. J. Lincoln.
Elkins	Randolph	1,940	11	50.5	+ 1.8	84	5	29	10	48	2.24	− 1.05	0.37	T.	16	9	8	13	sw.	U. S. Weather Bureau.
Fairmont	Marion	879	18	.....	.....	.....	.....	.....	.....	.....	2.17	− 1.34	0.46	0.0	16	.....	.....	.....	s.	H. Glenn Fleming.
Glenville	Gilmer	738	22	54.7	+ 2.3	89	30	27	7	53	3.02	− 0.70	0.50	0.0	11	7	6	17	sw.	John Holt.
Grafton	Taylor	985	18	53.8	+ 2.9	89	5	27	8†	55	2.94	− 0.89	0.82	0.0	16	12	10	8	.....	John W. Snider.
Green Sulphur Springs	Summers	1,600	14	50.0	.....	87	30	29	8†	43	7.23	+ 4.47	2.23	T.	18	15	4	11	w.	John W. Dalton.
Hinton	....do	1,400	21	.....	.....	.....	.....	.....	.....	.....	4.06	+ 0.81	1.22	T.	18	.....	.....	.....	sw.	V. V. Daly.
Huntingdon	Cabell	510	15	54.4	+ 1.2	88	30	30	8	47	4.30	+ 0.66	1.26	0.0	13	13	3	14	w.	L. H. Hutchinson.
Lewisburg	Greenbrier	2,200	10	52.2	+ 2.7	80	5	29	22	42	3.71	+ 0.47	0.86	T.	13	9	8	13	w.	Geo. T. Afgabrite.
Logan	Logan	665	8	59.8	.....	90	30	32	8	46	4.10	.....	0.80	T.	15	4	22	4	e.	H. C. Ragland.
Lost Creek	Harrison	1,033	14	52.7	+ 3.5	87	5	21	8	58	1.66	− 1.81	0.41	0.5	13	9	5	16	w.	Allen Smith.
Madison	Boone	704	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	S. E. Bradley.
Mannington	Marion	967	7	53.2	.....	86	5†	23	8	58	2.32	.....	0.35	0.5	17	9	7	14	sw.	Jas. A. Morgan.
Marlinton	Pocahontas	2,169	11	48.6	+ 1.2	76	30	27	8	37	2.50	− 0.46	0.51	0.0	9	15	5	10	.....	C. J. McCarty.
Morgantown	Monongalia	1,250	36	53.9[a]	+ 3.1	80[a]	5†	30[a]	8	45[a]	2.06[a]	− 1.31	0.32[a]	T.[a]	13[a]	11[a]	8[a]	10[a]	s.[a]	Horace Atwood.
Moundsville	Marshall	640	8	54.2	.....	87	5	26	8	51	2.45	.....	0.33	0.0	15	14	5	11	sw.	J. E. Matthews.
New Cumberland	Hancock	987	10	51.3	+ 2.2	84	5†	26	8	50	2.75	− 0.76	0.70	T.	9	10	3	17	e.	Frank S. Evans.
New Martinsville	Wetzel	634	17	54.8	+ 2.1	87	5	27	8	51	3.11	− 0.46	0.46	T.	13	16	4	10	s.	Wm. Ankron.
Nuttallburg	Fayette	2,252	18	50.5	.....	84	30	28	8†	40	1.63	− 1.70	0.42	T.	14	9	13	8	.....	Stephen Tully.
Parkersburg	Wood	638	22	54.0	+ 1.1	83	30	30	8	45	1.87	− 1.04	0.70	T.	19	8	5	17	se.	U. S. Weather Bureau.
Parsons	Tucker	1,662	11	51.0	+ 3.3	83	5	25	10	54	2.97	− 0.69	.....	.....	.....	10	10	10	.....	J. W. Swisher.
Philippi	Barbour	1,192	18	53.2	+ 3.1	88	5	25	10†	53	2.34	− 1.71	0.50	T.	17	8	13	9	w.	J. D. Dadisman.
Pickens	Randolph	2,785	20	50.8	+ 2.9	85	30	25	8	47	4.65	− 0.09	.....	7.2	13	10	8	12	w.	Dr. J. L. Cunningham.
Pineville	Wyoming	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. M. Senter.
Point Pleasant	Mason	553	21	55.4	+ 0.6	88	30	29	8	49	3.02	− 0.13	0.84	T.	15	10	6	14	se.	E. H. Armstrong.
Powellton	Fayette	904	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	D. Swain.
Princeton	Mercer	2,469	10	49.6	.....	77	30	29	25	39	6.25	+ 0.50	1.44	1.0	13	7	19	4	w.	H. Scott.
Robertsburg	Putnam	.....	1	53.7	.....	85	30	27	8	48	3.81	.....	0.72	T.	14	9	3	18	s.	E. P. Turley.
Ryan	Roane	639	7	53.2	.....	87	30	22	8	52	3.14	.....	0.67	2.0	15	9	6	15	.....	Wm. E. Ryan.
Smithfield	Wetzel	.....	6	51.0	.....	84	30	25	8	46	3.84	.....	1.38	0.0	14	12	4	14	ne.	G. M. Whisler.
Spencer	Roane	710	7	51.7	.....	90	30	20	8†	60	3.60	+ 0.24	0.55	T.	13	3	20	7	.....	A. M. McKown.
Sutton	Braxton	.....	5	56.1	.....	91	30	28	7	48	.....	.....	.....	T.	.....	13	2	15	.....	J. E. Baughman.
Terra Alta	Preston	3,207	10	52.8	+ 5.4	82	9	27	8	38	4.68	+ 1.15	1.75	3.9	11	10	8	12	w.	C. F. Dodge.
Union	Monroe	.....	7	50.8	.....	80	5†	26	22	46	3.54	.....	0.85	0.0	12	.....	.....	.....	.....	Shelton Clark.
Valley Fork	Clay	.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss Blanche Pierson.
Webster Springs	Webster	1,500	7	53.8[a]	.....	.....	.....	25[a]	8	.....	.....	.....	.....	0.5[a]	.....	.....	.....	.....	.....	D. H. Hamrick.
Wellsburg	Brooke	1,225	10	51.7	+ 3.9	81	5	28	8	37	1.98	− 1.04	0.35	6.5	11	8	11	11	sw.	C. P. Waugh.
Weston	Lewis	824	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss C. M. Davis.
Wheeling	Ohio	645	26	52.0	.....	86	5†	27	8	53	2.65	− 0.30	0.44	0.3	15	6	5	19	sw.	Miss M. B. Forsyth.
Williamson	Mingo	660	10	58.0	.....	89	14†	32	8	44	2.52	− 1.56	0.52	0.0	12	9	9	12	e.	J. F. Keyser.
Ohio.																				
Amesville	Athens	630	6	53.4	.....	87	30	23	8	57	2.98	.....	0.50	T.	14	9	13	8	nw.	F. W. Gibson.
Bangorville	Richland	1,380	23	51.6	+ 3.0	80	29	28	8	36	4.57	+ 1.66	1.53	3.5	11	11	11	8	sw.	S. M. Painter.
Bellefontaine	Logan	1,276	16	48.9	+ 0.4	80	29	21	24	40	3.62	+ 0.41	0.92	.....	10	10	2	18	sw.	Cory L. Lane.
Bladensburg	Knox	1,100	19	48.2[a]	.....	80[a]	13	19[a]	8	58[a]	.....	.....	.....	.....	.....	.....	.....	.....	.....	Miss Mary Elliott.
Cadiz	Harrison	1,245	7	52.3	.....	83	5†	27	8	44	2.81	.....	0.67	6.0	13	8	10	12	nw.	Harry B. McConnell.
Cambridge	Guernsey	803	18	51.2	+ 1.7	86	5	22	8	55	2.36	− 0.89	0.56	.....	8	7	17	6	.....	Samuel Mehaffey.
Camp Dennison	Hamilton	570	17	54.5	+ 1.8	86	30	26	24	46	1.86	− 0.89	0.44	T.	13	11	9	10	se.	Henry F. Pinkvoss.
Canal Dover	Tuscarawas	884	17	50.8	+ 2.7	80	5†	25	8	50	2.75	− 0.34	0.56	3.0	7	7	18	5	s.	Ed. S. Slingluff.
Canton	Stark	1,065	27	49.0	+ 0.9	79	5	28	8	44	3.02	− 0.11	0.80	4.0	12	9	8	13	s.	Prof. C. F. Stokey.
Cardington	Morrow	1,010	15	51.1	+ 2.2	80	29	22	13	38	4.43	+ 1.38	1.39	1.5	9	13	10	7	se.	Ansel E. Salisbury.
Cincinnati	Hamilton	628	39	55.0	+ 0.7	84	30	31	24	34	1.65	− 1.30	0.62	T.	12	8	8	14	se.	U. S. Weather Bureau.
Circleville	Pickaway	694	22	53.4	+ 1.6	88	5	26	24	47	4.47	+ 1.74	0.93	T.	12	10	8	12	s.	Hon. S. W. Courtright.
Clarington	Monroe	600	7	53.5	.....	85	5	24	8	50	3.06	.....	0.42	0.2	15	7	5	18	sw.	Col. S. Tschappat.
Columbus	Franklin	918	32	52.6	+ 1.6	81	30	29	24	37	2.52	− 0.35	0.83	3.2	14	9	10	11	sw.	U. S. Weather Bureau.
Coshocton	Coshocton	770	1	.....	.....	.....	.....	.....	.....	.....	2.58	.....	0.53	.....	14	.....	.....	.....	.....	Mrs. Ada Jeffries.
Dayton	Montgomery	790	29	52.6	+ 0.9	85	29	25	24	46	1.85	− 0.83	0.51	T.	13	8	16	6	sw.	Mrs. Edith L. Boyer.
Delaware	Delaware	927	13	51.7	+ 3.3	81	29	25	8	48	4.45	+ 1.80	1.32	2.7	11	9	7	14	sw.	Prof. L. L. Hudson.
Demos	Belmont	1,325	22	52.8	+ 2.8	85	5	27	8	44	2.30	− 0.96	0.39	2.2	15	9	11	10	s.	J. T. Dysart.
Dennison§	Tuscarawas	908	.....	52.6	.....	83	5†	24	13	54	2.51	.....	0.48	1.5	15	9	16	5	s.	Water Supply Co.

TABLE 1.—*Climatological data for April, 1910. District No. 3*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Ohio—Cont'd.																				
Frankfort	Ross	750	18	54.4	+ 2.7	85	30	27	8	50	2.81	− 0.32	0.70	0.0	7	12	9	9	sw.	O. A. Cory.
Garrettsville	Portage	1,005	26	48.8	+ 2.9	81	5	22	8†	48	3.18	+ 0.18	1.43	8.0	11	9	9	12	w.	S. M. Luther.
Granville	Licking	960	28	50.6	+ 1.0	81	5†	24	8	52	2.98	+ 0.13	0.90	1.0	12	13	0	17	w.	Dr. L. E. Davis.
Gratiot‖	do	1,000	21	50.8	+ 0.7	80	5†	24	8	43	2.69	− 0.21	0.74	3.0	12	7	14	9	w.	W. B. Longstret.
Green	Adams	500	17	54.4	+ 1.4	85	30	27	24	47	3.22	+ 0.08	1.00	0.0	7	14	9	7	w.	W. F. Kenyon.
Green Hill	Columbiana	1,135	18	48.6	+ 2.1	81	5	22	8	51	1.98	− 0.89	0.36	4.0	12	8	14	8	sw.	Jos. E. Bentley.
Greenville	Darke	1,060	24	52.2	+ 2.3	83	29	27	24	45	3.28	+ 0.18	0.85	.....	10	11	4	15	se.	G. A. Katzenberger.
Hillsboro	Highland	1,063	31	53.6	+ 1.0	82	30	25	24	36	2.85	− 0.40	0.70	T.	11	8	14	8	sw.	Carey H. Roush.
Ironton	Lawrence	575	27	55.0	+ 2.0	87	30	29	8†	44	4.46	+ 1.11	0.75	0.0	14	8	7	15	sw.	James Bull.
Jacksonburg	Butler	975	42	53.3	+ 1.9	84	30	24	23†	39	2.35	− 0.69	0.84	.....	7	14	5	11	sw.	Dr. J. B. Owsley.
Kenton	Hardin	1,015	18	50.5	+ 0.2	79	11†	22	13	52	4.01	+ 0.56	1.31	2.0	11	10	10	10	sw.	N. S. Martin.
Killbuck	Holmes	1,087	18	51.2	+ 2.5	81	5	26	8	45	2.91	− 0.09	0.97	2.0	8	11	14	5	n.	Geo. W. Nowels.
Lancaster	Fairfield	898	15	53.1	+ 2.6	81	5	30	8†	44	3.32	+ 0.35	0.85	.....	15	11	4	15	s.	R. L. Renshaw.
Lawshe	Adams	900	7	53.3	.....	84	30	24	8†	51	2.87	.....	0.90	.....	14	10	10	10	w.	Miss Ruth Hoffman.
McConnelsville	Morgan	710	26	52.5	+ 1.7	84	30	25	8	43	3.28	+ 0.18	0.72	2.0	12	5	10	15	w.	C. H. Morris.
Marietta	Washington	627	90	55.2	+ 1.9	86	30	27	8	49	2.19	− 1.19	0.51	0.0	14	6	11	13	s.	Prof. T. D. Biscoe.
Marion	Marion	980	32	53.4	+ 3.8	83	29	26	13†	50	3.85	+ 0.92	1.10	3.0	9	6	16	8	sw.	Dr. E. H. Raffensperger.
Milfordton	Knox	1,200	18	50.8	+ 3.5	80	11	25	8	45	2.35	− 0.39	0.81	3.0	8	15	10	5	sw.	L. H. Burgess.
Milligan‖	Perry	875	17	51.4	+ 1.2	83	5†	23	8	55	2.62	− 0.42	0.53	1.0	13	8	13	9	nw.	V. C. Eveland.
Millport	Columbiana	1,145	18	49.6	+ 1.5	81	5	24	8	51	2.04	− 1.04	0.41	3.0	11	7	8	15	sw.	G. F. Copeland.
Nellie	Coshocton	850	10	52.1	+ 2.7	82	4	24	12	50	2.20	− 0.80	1.00	T.	6	14	7	9	w.	Miss Ethel L. Gamertsfelder
New Alexandria	Jefferson	1,050	25	53.6	+ 3.5	82	6	26	9	42	1.60	− 1.95	1.20	4.0	2	14	6	10	s.	Mrs. Mary K. Pennell.
New Berlin	Stark	1,100	18	49.4	+ 1.7	80	5	26	8	47	3.54	+ 0.23	0.90	7.0	13	15	4	11	nw.	Clayton Holl.
New Waterford	Columbiana	1,053	16	50.0	+ 3.2	80	5	24	8	50	2.68	− 0.51	0.95	.....	.....	11	14	5	sw.	Sam. C. Scott.
Ohio State University	Franklin	757	27	52.2	+ 2.3	87	30	26	8†	46	2.54	− 0.33	0.77	0.2	11	6	14	10	sw.	Prof. H. C. Lord.
Pataskala	Licking	997	18	51.6	+ 1.9	81	30	25	8	44	2.94	− 0.31	0.75	4.0	14	8	16	6	nw.	J. N. Ridenour.
Philo(1)	Muskingum	1,018	15	52.5	+ 1.8	82	5	27	8	38	2.28	− 0.77	0.47	2.3	12	10	11	9	nw.	L. C. Burekholter.
Plattsburg	Clarke	1,130	17	52.4	+ 2.3	80	29†	23	24	42	2.69	+ 0.06	0.86	T.	8	12	17	11	sw.	F. E. Stewart.
Pomeroy	Meigs	781	26	55.6	+ 2.0	86	30	31	8†	43	2.79	+ 0.20	0.65	T.	18	6	14	10	w.	W. G. Branch.
Portsmouth	Scioto	527	79	54.5	− 1.1	83	30	29	24	42	3.66	+ 0.42	0.70	0.0	15	12	2	16	w.	Dr. H. A. Schirrmann.
Rittman	Wayne	990	18	50.3	+ 3.8	80	5	20	2	52	2.04	− 0.80	0.62	5.0	9	16	5	9	n.	J. B. Gish.
Shenandoah‖	Richland	1,100	18	48.2	+ 1.2	80	29	23	1	46	4.43	+ 1.36	1.17	9.9	11	5	19	6	sw.	T. B. Arnett.
Sidney	Shelby	985	27	53.2	+ 3.3	84	29	25	24	44	3.27	+ 0.30	0.80	5.5	13	13	7	10	sw.	Hamline B. Blake.
Somerset	Perry	1,080	11	51.4	+ 1.2	81	30	29	19	43	3.44	+ 0.12	0.65	3.0	16	14	8	8	s.	Miss M. W. C. Sheridan.
Springfield	Clarke	1,002	16	.....	.....	.....	.....	.....	.....	.....	2.86	+ 0.39	0.72	.....	12	9	16	5	sw.	W. A. Webster.
Summerfield	Noble	1,187	4	51.6a	.....	84	30	22a	8	53a	3.46	.....	0.67	1.5	17	5	16	9	sw.	H. R. McClintock.
Thurman	Gallia	696	17	54.6	+ 0.8	86	30	28	24	45	2.38	− 0.03	0.42	T.	8	8	11	11	w.	D. D. Thomas
Urbana	Champaign	1,031	40	53.2	+ 4.3	83	29	22	24	43	4.12	+ 1.00	1.03	2.0	12	6	18	6	sw.	Prof. J. H. Williams.
Warren	Trumbull	900	21	49.8	+ 3.0	83	5	25	13	47	3.15	+ 0.55	1.15	4.1	11	12	6	12	nw.	M. D. McCorkle.
Waverly‖	Pike	590	27	52.4	− 0.7	88	30	25	8†	53	3.07	− 0.16	1.08	.....	16	15	3	12	s.	David Lorbach.
Waynesville	Warren	700	25	53.4	+ 3.4	83	30	25	24	39	1.93	+ 1.13	0.32	0.0	11	10	13	7	sw.	Charles Michener.
Wooster	Wayne	1,030	30	50.2	+ 2.5	81	5	23	13	51	3.22	+ 0.71	0.85	9.2	14	11	3	16	nw.	Experiment Station.
Youngstown	Mahoning	846	18	.....	.....	.....	.....	.....	.....	.....	2.59	+ 0.34	0.83	.....	13	14	0	16	w.	G. R. Patton.
Zanesville	Muskingum	709	23	.....	.....	.....	.....	.....	.....	.....	1.78	− 0.74	0.33	0.5	13	12	0	18	s.	S. G. Sprague.
Virginia.																				
Big Stone Gap	Wise	1,540	19	55.4	+ 1.8	81	4†	30	20†	44	4.72	+ 0.88	0.85	0.0	12	8	15	7	w.	John W. Fox, sr.
Blacksburg	Montgomery	2,170	19	52.0	+ 2.0	83	30	30	22†	42	4.24	+ 1.42	0.75	T.	16	10	9	11	w.	Agricultural Exp. Station.
Burkes Garden	Tazewell	3,250	15	47.9	+ 0.7	75	30	25	10†	44	4.29	+ 0.45	1.03	1.0	10	9	4	17	sw.	C. H. Greever.
Elk Knob	Lee	3,243	7	54.8	.....	80	4	29	19†	28	4.04	.....	1.01	2.0	18	11	6	13	sw.	Henry Nicoll.
Galax	Grayson	2,300	2	51.5	.....	81	30	30	11†	44	4.01	.....	1.90	T.	9	10	13	7	s.	E. C. Williams.
Ivanhoe**‖	Wythe	2,028	6	52.8	.....	76	3†	34	19†	30	3.90	.....	1.16	0.0	19	8	16	6	w.	Miss Alice G. Jewett.
Lebanon	Russell	2,131	..	52.0	.....	79	30	28	8	39	3.14	.....	1.00	T.	13	12	5	13	sw.	R. D. Swain.
Marion	Smyth	2,224	15	53.2	+ 1.0	79	30	29	9	45	3.73	+ 0.51	1.14	0.0	11	13	11	6	sw.	S. W'n State Hospital.
Max Meadows	Wythe	2,028	14	52.0	+ 0.9	80	30	31	9†	43	3.55	.....	1.10	T.	10	13	5	12	sw.	James M. Graham.
Mendota	Washington	1,350	4	.....	.....	.....	.....	.....	.....	.....	2.99	.....	0.82	0.0	11	.....	.....	.....	.....	Frank M. Baker.
Radford	Montgomery	1,773	4	.....	.....	.....	.....	.....	.....	.....	4.46	.....	1.08	0.0	11	.....	.....	.....	.....	Arthur Roberts.
Speers Ferry	Scott	1,221	14	.....	.....	.....	.....	.....	.....	.....	3.88	+ 0.18	1.18	T.	10	.....	.....	.....	.....	Mrs. L. E. Venable.
Wytheville	Wythe	2,293	17	52.4	− 0.4	78	30	31	19	37	3.79	+ 0.13	1.50	T.	16	8	10	12	w.	U. S. Weather Bureau.
North Carolina.																				
Andrews	Cherokee	1,800	....	56.0	.....	84	4	29	24	48	5.72	.....	1.24	T.	14	9	11	10	sw.	J. D. Link.
Asheville	Buncombe	2,250	31	54.8	+ 0.9	82	30	31	26	39	1.72	− 2.32	0.59	T.	10	10	6	14	nw.	U. S. Weather Bureau.
Banners Elk	Watauga	3,750	2	48.1	.....	76	4	26	25	41	3.12	.....	0.96	0.5	14	12	7	11	w.	T. L. Lowe.
Brevard	Transylvania	2,230	9	54.4	.....	83	30	28	9	51	2.30	.....	1.33	T.	7	16	13	1	n.	W. E. Breese.
Bryson City	Swain	2,000	22	.....	.....	.....	.....	.....	.....	.....	4.00	− 0.25	1.36	0.0	9	.....	.....	.....	.....	D. K. Collins.
Cullowhee	Jackson	2,100	....	53.7	.....	83	4†	25	8	53	2.29	.....	0.67	T.	13	12	6	12	sw.	F. H. Brown.
Hendersonville	Henderson	2,167	14	55.4	+ 2.1	87	30	30	22	46	2.35	− 1.83	1.36	T.	9	20	4	6	.....	T. W. Valentine.
Highlands	Macon	3,670	20	49.4	− 0.1	77	4	22	24	39	4.28	− 2.22	3.30	6.0	5	15	9	6	nw.	T. G. Harbison.
Hot Springs	Madison	1,326	12	53.4a	+ 0.2	88a	4	32a	8†	46a	3.22	.....	0.81	1.0	13	13	7	10	w.	P. A. Garner.
Jefferson	Ashe	2,800	3	53.1	.....	79	4†	29	25	38	1.98	.....	0.40	0.3	8	6	5	19	w.	E. J. Johnson.
Marshall	Madison	1,646	9	55.5	.....	86	4	30	22	47	1.33	.....	0.67	0.0	9	.....	.....	.....	.....	W. E. Finley.
Murphy	Cherokee	1,614	34	.....	.....	.....	.....	.....	.....	.....	3.80	− 1.20	1.70	1.0	7	.....	.....	.....	.....	Miss J. Campbell.
Rock House	Macon	3,100	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. C. Hawkins.
Waynesville	Haywood	2,736	16	53.8	+ 1.6	80	30	30	9†	45	2.78	− 1.07	1.27	T.	14	12	13	5	sw.	J. C. L. Gudger.
Georgia.																				
Diamond	Gilmer	2,020	19	56.5a	.....	84a	4	29a	24	40a	5.11	.....	2.11	4.5	9	11	6	15	.....	R. A. Kimzey.
La Fayette	Walker	871	3	58.6	.....	89	10	29	24	44	3.60	.....	1.75	2.0‖	5	7	11	12	nw.	Ralph A. Snow.
Alabama.																				
Bridgeport	Jackson	660	10	.....	.....	.....	.....	.....	.....	.....	2.37	− 1.98	1.07	0.0	5	13	0	17	n.	Miss Maggie Rinkle.
Decatur	Morgan	573	28	60.0	− 1.8	87	29†	32	25†	46	3.08	− 1.20	2.17	0.0	10	13	0	17	s.	Ernest A. Carriger.
Florence	Lauderdale	563	26	59.3	− 1.8	84	29†	33	7†	43	1.67	− 2.89	0.76	0.0	7	14	9	7	.....	G. H. Smith.
Guntersville	Marshall	580	5	59.2	.....	87	30	28	25	44	1.90	.....	1.36	0.0	11	11	9	10	s.	L. S. Long.
Madison	Madison	573	16	59.1	− 1.6	85	29†	26	25	42	2.50	− 1.72	1.16	0.0	7	14	15	1	nw.	Albert Klish.
Riverton	Colbert	360	13	58.6	0.0	87	15	32	25†	45	6.17	+ 2.07	3.25	0.0	9	9	8	13	w.	Ernie J. Moore.
Scottsboro	Jackson	652	27	59.0a	− 1.1	85a	4†	29a	25	45a	1.33	− 3.34	0.65	T.	7	8	17	5	.....	Miss Irene Caldwell.
Tuscumbia	Colbert	488	28	59.6	− 1.5	86	29†	35	21†	47	1.43	− 3.16	0.60	0.0	9	11	2	17	se.	Samuel Moore.
Tennessee.																				
Ashwood	Maury	725	31	58.7	− 0.4	85	4	28	25	40	5.20	+ 0.43	3.65	T.	6	7	6	17	s.	Mrs. J. W. Fleming.
Benton	Polk	880	25	58.9	+ 0.3	87	4	29	24	43	4.32	+ 0.26	0.84	4.5	11	10	10	10	sw.	G. L. Williams.
Byrdstown	Pickett	1,026	17	57.3	+ 1.1	83	4†	31	24	38	5.70	+ 1.34	1.00	0.0	9	8	7	15	sw.	John Lacy.
Carthage	Smith	500	26	58.8	+ 0.2	85	30	31	25	42	4.89	+ 0.75	1.14	3.2	18	11	4	15	sw.	E. C. Pickering.
Cedar Hill	Robertson	625	10	59.0	.....	87	14†	31	25	36	7.02	.....	2.50	7.0	12	8	14	8	w.	J. F. Ruffin.
Chattanooga	Hamilton	808	31	59.6	− 0.4	85	30	32	25	36	3.30	− 1.09	1.36	4.1	12	9	6	15	sw.	U. S. Weather Bureau.
Clarksville	Montgomery	520	47	58.2	− 1.0	85	29†	33	25	40	4.82	+ 0.19	1.82	3.6	15	11	8	11	s.	Prof. Jas. A. Lyon.
Decatur	Meigs	850	14	58.1	+ 0.6	87	4	27	24	48	3.80	− 1.14	0.90	T.	11	11	9	10	sw.	J. W. Lillard.
Dickson	Dickson	800	14	56.2c	− 1.3	85c	30	28c	25	45c	5.63	.....	2.69	0.3	10	6	18	6	w.	N. R. Sugg.
Dover	Stewart	.....	15	58.2	− 0.3	86	10†	32	24†	45	5.22	.....	2.42	4.0	10	8	10	12	s.	A. M. Tippit.
Dunlap	Sequatchie	726	1	58.8	.....	86	4†	30	24	47	2.95	.....	1.05	3.0	9	9	11	10	.....	S. B. Boyd.

TABLE 1.—*Climatological data for April, 1910. District No. 3*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Tennessee—Cont'd.																				
Elizabethton	Carter	1,575	20																	Lee F. Miller.
Erasmus	Cumberland	1,850	13	52.6	+ 0.3	82	4	27	24	47	5.25	− 0.15	1.51	8.2	14	9	9	12	w.	Mrs. E. D. Ashley.
Florence	Rutherford	560	28	57.6	− 1.6	83	4	33	24	37	4.10	− 0.04	1.50	1.2	11	10	12	8	s.	Erastus P. Bell.
Franklin	Williamson	655	20	57.2	− 1.4	83	2	29	25	38	6.05	+ 1.16	2.82	T.	8	9	3	18	.....	J. L. Parkes, jr.
Harriman	Roane	841	15	58.4	+ 1.0	87	4	30	24	42	4.24	− 0.17	1.51	2.0	7	11	13	6	.....	Robert R. Ayers.
Hohenwald	Lewis	983	24	58.0	− 0.3	83	29†	28	25	43	7.29	+ 2.74	4.05	T.	12	9	15	6	sw.	John Lutzelman.
Iron City	Lawrence	.....	13	57.8	− 0.9	84	4†	28	25	45	3.07	− 1.89	1.21	T.	8	.....	.....	.....	nw.	Capt. H. P. Seavy.
Johnsonville	Humphreys	364	14	57.8	− 1.0	86	29	31	25†	43	4.93	+ 0.37	1.94	T.	12	7	13	10	s.	Miss Sallie B. Matthews.
Jonesboro	Washington	1,740	15	56.0	+ 1.1	85	4	28	8	47	3.76	+ 0.11	0.80	T.	15	9	11	10	ne.	Robert A. Lovegrove.
Knoxville	Knox	977	39	57.8	+ 0.4	85	4	33	35	36	4.12	− 0.52	0.90	0.7	13	11	7	12	sw.	U. S. Weather Bureau.
Lebanon	Wilson	522	1	58.2	.....	84	3†	31	25	38	5.73	.....	2.02	2.0	16	9	5	16	s.	Logan Fields.
Lewisburg	Marshall	727	15	58.0	− 0.1	84	29	25	25	45	5.19	+ 1.24	2.39	T.	12	10	7	13	sw.	Dr. R. D. Crutcher.
Lynnville	Giles	770	22	57.0	− 1.3	82	30	30	25	40	5.53	+ 0.90	2.99	T.	8	6	18	6	n.	Col. J. H. Burrow.
McMinnville	Warren	1,011	26	57.6	− 0.4	87	4	30	25	42	4.69	− 0.28	1.80	8.3	14	7	13	10	s.	J. T. Sparkman.
Maryville	Blount	1,050	14	58.5	+ 1.6	88	4	30	24	44	2.99	− 0.55	0.66	T.	13	10	11	9	sw.	Mrs. F. E. Benedict.
Mountain City	Johnson	2,486	13	52.1	+ 2.7	82	3	25	9	47	3.00	− 0.71	1.10	T.	11	11	9	10	.....	E. F. Barry.
Nashville	Davidson	654	39	58.2	− 0.9	85	29	32	25	34	6.10	+ 1.74	3.31	1.5	14	7	8	15	sw.	U. S. Weather Bureau.
Newport	Cocke	1,280	20	56.6	− 0.1	81	30	35	8	34	3.70	+ 0.16	1.20	T.	8	16	7	7	w.	Dr. C. T. Burnett.
Palmetto	Bedford	770	17	59.6	+ 0.7	84	4†	27	25	43	4.39	+ 0.05	2.28	T.	6	10	9	11	n.	Mrs. Ross Woods.
Pinewood	Hickman	.....	3	58.1[a]	.....	87[a]	30	28[a]	25	48[a]	5.64	.....	3.25	0.7	10	8	13	9	n.	Miss Carrie Cash.
Pope	Perry	.....	13	54.8	− 3.6	84	10	31	24	50	5.25	+ 1.49	4.20	0.3	7	15	11	4	s.	Miss Bessie Howard.
Rogersville	Hawkins	1,150	25	55.6	− 0.3	84	4	30	8†	44	2.96	− 0.61	0.70	T.	14	12	9	9	w.	Fred. Beal.
Rugby	Morgan	1,410	22	53.2	− 1.4	85	30	24	24	47	6.99	+ 2.53	1.11	5.0	18	8	3	19	w.	S. G. Wilson.
Savannah	Hardin	442	26	59.2	− 1.4	84	29	34	25	41	7.27	+ 3.19	5.30	T.	7	10	8	12	sw.	J. A. Spencer.
Sevierville	Sevier	.....	4	56.4	.....	86	4	30	24	49	3.93	.....	1.37	T.	10	7	8	15	sw.	H. O. Eckel.
Sewanee	Franklin	2,000	14	56.0	0.0	82	8	28	25	43	3.23	− 1.17	1.50	5.0	5	8	1	21	nw.	University of the South.
Sparta	White	920	4	56.1[a]	.....	82[a]	2†	30	24	43[a]	4.10	.....	1.07	4.5	9	8	7	15	w.	E. H. Hull.
Springdale	Claiborne	1,058	20	58.1	+ 2.5	88	29	28	22	51	3.65	+ 0.39	0.87	T.	10	9	6	15	w.	Mrs. Lucy E. Breeding.
Springville	Henry	377	7	57.2	.....	84	29	31	7†	42	5.54	.....	2.95	2.0	17	11	8	11	s.	H. A. Boden.
Tullahoma	Coffee	1,075	22	57.6	+ 0.4	84	4	29	25	40	4.28	− 0.26	2.21	T.	10	8	11	11	w.	R. T. Moore.
Waynesboro	Wayne	753	24	57.7	− 1.1	84	29	30	25	42	9.00	+ 5.01	6.94	0.5	14	8	12	10	s.	H. C. Boyd.
Wildersville	Henderson	.....	13	59.0	+ 0.5	87	3	32	24	40	3.39	− 0.53	1.95	T.	8	8	8	14	s.	W. R. Wilson.
Yukon	Lincoln	850	13	58.6	− 0.4	86	17	26	25	47	3.61	− 0.79	1.75	0.0	8	8	18	6	w.	W. P. Watson.
Kentucky.																				
Alpha	Clinton	.....	16	58.2	+ 1.2	84	4†	35	24†	35	6.23	+ 1.96	1.37	T.	10	14	1	15	w.	W. W. Hicks.
Anchorage	Jefferson	700	9	54.2[a]	+ 1.5	82[a]	30	30	7†	39[a]	5.56	+ 1.62	1.97	0.5	8	10[a]	8[a]	11[a]	sw.	C. E. Barrett.
Bardstown	Nelson	637	14	56.0	+ 1.6	86	30	30	24	43	5.08	+ 2.04	1.05	0.5	15	14	2	14	sc.	G. M. Talbott.
Beattyville	Lee	650	7	54.2	.....	86	4†	26	24	48	4.50	.....	0.68	T.	13	11	7	12	w	G. W. Cann.
Beaver Dam	Ohio	441	7	53.7[b]	.....	85[b]	30	31	7†	43[b]	6.50	.....	1.50	T.	13	14	1	15	nw.	T. S. Woodward.
Berea	Madison	1,070	9	57.6	+ 3.1	86	30	31	8	36	3.40	− 0.19	1.25	0.2	13	12	9	9	ne.	C. F. Rumold.
Bowling Green	Warren	500	21	58.2	− 0.1	88	30	30	24	43	5.73	+ 1.90	0.78	2.3	16	13	1	16	s.	Mrs. L. G. Causey.
Burnside	Pulaski	773	20	.....	.....	.....	.....	.....	.....	.....	4.74	+ 0.79	0.90	0.0	14	11	8	11	ne.	G. M. Estes.
Cadiz	Trigg	.....	8	56.4[b]	.....	84	29†	30[b]	24†	40[b]	4.72	.....	1.42	.....	11	.....	.....	.....	.....	F. T. Street.
Calhoun	McLean	397	7	58.1	.....	85	29†	31	24	46	7.01	.....	2.21	T.	16	6	12	12	sw.	W. A. Taylor.
Catlettsburg	Boyd	544	17	.....	.....	.....	.....	.....	.....	.....	4.28	+ 0.82	0.76	T.	14	18	2	10	n.	Chas. N. Bruns.
Earlington	Hopkins	370	21	56.0	− 1.2	86	30	31	7	47	7.02	+ 2.70	2.28	T.	13	14	3	13	s.	J. B. Atkinson.
Edmonton	Metcalfe	600	19	56.6	+ 0.8	83	30	30	24	41	6.30	+ 2.20	1.65	T.	16	11	5	14	w.	Miss Lee Ray.
Eubank	Pulaski	1,177	16	.....	.....	82[1]	29	27[1]	24	47[1]	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. Henderson.
Falmouth	Pendleton	530	21	.....	.....	.....	.....	.....	.....	.....	2.78	− 0.45	0.60	T.	14	14	6	10	sw.	J. V. Oldham.
Farmers	Rowan	668	5	55.2	.....	85	14†	25	24	46	5.02	.....	1.55	T.	15	7	12	11	w.	Miss Gertrude Sorrell.
Frankfort	Franklin	560	20	56.0	+ 0.9	82	30	31	34	36	2.94	− 0.23	0.85	T.	13	15	6	9	s.	Gustave Schaefer.
Franklin	Simpson	691	17	57.9	− 1.2	85	29†	31	25	38	6.64	+ 2.65	1.80	5.0	12	4	15	11	nw.	J. E. Newman.
Greensburg	Green	581	18	54.0	− 1.1	83	29†	27	24	51	5.85	+ 2.19	0.71	0.0	17	12	0	18	n.	L. C. Alcorn.
Highbridge	Jessamine	762	8	.....	.....	.....	.....	.....	.....	.....	5.34	.....	1.04	.....	17	16	2	12	.....	Miss Lulu Wood.
Hopkinsville	Christian	524	14	56.8	+ 0.1	87	9	32	25	47	6.32	+ 2.84	1.97	5.0	14	14	0	16	ne.	W. F. Randle.
Irvington	Breckinridge	.....	12	56.0	+ 1.6	82	30	31	24	35	5.87	+ 3.09	2.30	T.	12	10	3	17	sw.	W. J. Piggott.
Leitchfield	Grayson	635	15	55.5	0.0	81	29†	30	24	36	5.36	+ 2.01	1.27	T.	.....	10	7	13	ne.	John E. Stone.
Lexington	Fayette	989	23	54.1	+ 0.4	81	30	28	24	30	4.22	+ 0.88	1.09	0.8	14	5	10	15	sw.	U. S. Weather Bureau.
Loretto	Marion	681	13	55.1[a]	+ 1.0	82[a]	29	27[a]	23	41[a]	5.50	+ 2.48	1.24	0.0	10	12[a]	9[a]	8[a]	.....	Loretto Academy.
Louisville	Jefferson	525	38	56.8	+ 0.6	85	30	33	24	32	4.61	+ 0.54	1.91	T.	13	7	7	16	sw.	U. S. Weather Bureau.
Marion	Crittenden	.....	16	56.2	− 0.7	82	29	28	24	33	6.62	+ 2.72	1.42	T.	12	9	4	17	nw.	B. C. Paris.
Maysville	Mason	524	14	52.9	− 0.4	87	30	25	24	48	3.67	+ 0.92	0.88	0.0	17	14	5	11	nw.	Mrs. Mary D. Marsh.
Middlesboro	Bell	1,128	17	56.4	+ 0.6	85	4	28	24	47	4.29	− 0.02	0.93	T.	12	17	7	6	.....	B. H. Perkins.
Mt. Sterling	Montgomery	930	21	54.4	+ 1.0	82	30	29	24	39	5.93	+ 2.28	1.51	T.	16	11	9	10	sw.	James O'Connell.
Owensboro	Daviess	479	14	55.2	0.0	82	29†	32	24	43	6.61	+ 3.33	1.33	T.	16	14	1	15	s.	Henry S. Berry.
Owenton	Owen	700	14	55.3[a]	+ 1.0	79[a]	30	28[a]	24	33[a]	3.78	+ 0.77	1.05	T.	9	4	16	10	.....	J. T. Walker.
Paducah	McCracken	341	18	.....	.....	.....	.....	.....	.....	.....	6.90	+ 3.00	2.00	.....	13	15	0	15	s.	S. A. Fowler.
Pikeville	Pike	.....	1	.....	.....	.....	.....	.....	.....	.....	2.06	.....	0.36	0.0	12	17	6	7	calm	A. R. Williams.
Richmond	Madison	926	21	55.6	+ 0.4	82	4	30	24	34	5.09	+ 1.86	1.04	.....	15	14	1	15	.....	J. W. Crooke.
St. John	Hardin	777	14	53.1	− 1.9	83	30	30	24	42	7.05	+ 4.17	1.25	0.0	16	19	2	9	.....	Bethlehem Academy.
Scott	Kenton	.....	13	55.6	+ 3.9	85	30	27	24	38	2.26	− 0.25	0.54	0.1	13	12	7	11	s.	E. B. Wilson.
Shelby City	Boyle	1,087	16	54.2	− 0.1	84	30	23	24	41	5.21	+ 1.96	0.96	T.	14	11	6	13	s.	W. E. Grubbs.
Shelbyville	Shelby	759	21	54.2	− 0.7	85	30	31	24	40	4.45	+ 1.42	0.85	T.	15	13	6	11	s.	Dr. H. W. Preissler.
Taylorsville	Spencer	422	8	55.4	.....	83	30	32	7†	39	4.46	.....	1.12	0.2	12	5	10	15	n.	E. D.Bourne.
Williamsburg	Whitley	939	13	53.2[c]	− 1.8	87[c]	30	28[c]	24	45[c]	4.99	+ 1.26	1.05	T.	15	14	0	16	se.	Noble C. Jones.
Williamstown	Grant	943	8	53.8	.....	83	30	31	25	37	2.42	.....	0.53	T.	13	15	1	14	.....	Mrs. Sarah E. Carter.
Indiana.																				
Anderson	Madison	892	15	53.1	+ 2.3	83	29	26	24†	40	2.93	− 0.30	0.60	3.5	12	14	5	11	sw.	W. H. Stanton
Bloomington	Monroe	744	15	53.4	+ 2.2	83	29	28	24	43	3.81	+ 0.57	0.53	.....	16	13	5	12	sw.	Earl E. Ramsey.
Bluffton	Wells	835	15	52.8	+ 3.0	84	29	26	24	43	2.63	− 0.45	0.53	T.	13	13	8	9	sw.	Prof. P. A. Allen.
Butlerville	Jennings	767	25	54.6	+ 1.0	84	30	28	24	39	2.54	− 0.99	0.55	2.2	11	14	7	9	w.	C. F. Hole.
Cambridge	Wayne	941	19	50.4	+ 0.9	83	29	24	24	50	3.75	+ 0.37	0.77	T.	12	19	0	11	s.	Charles Lemberger.
Columbus	Bartholomew	632	27	53.2	+ 0.9	84	29	29	24	43	2.68	− 0.36	0.48	0.0	16	14	3	13	sw.	John A. Perry.
Connersville	Fayette	769	28	53.4	+ 2.3	84	30	2.	24	47	3.02	− 0.30	0.79	0.5	11	14	8	8	w.	C. C. Hibbs.
Delphi	Carroll	668	25	51.1	+ 1.3	84	29†	25	24†	48	2.86	− 0.42	0.55	8.5	11	7	7	16	.....	Higginbotham & Son.
Eminence	Morgan	782	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. E. E. Kelso.
Evansville	Vanderburg	386	34	56.6	+ 0.2	81	30	30	24	29	4.29	+ 0.83	1.00	3.7	16	9	14	7	s.	U. S. Weather Bureau.
Farmersburg	Sullivan	.....	12	53.9[b]	+ 1.9	83[b]	29	26[b]	24	39[b]	1.60	− 1.19	0.54	0.0	6	10[a]	6[a]	13[a]	sw.	Maurice Yeager.
Farmland	Randolph	1,101	28	51.6	+ 1.4	81	29	28	24	42	3.66	+ 0.36	0.72	0.0	10	11	3	16	sw.	W. J. Davisson.
Greenfield	Hancock	905	7	53 0	.....	78	29	28	24	35	2.88	.....	0.80	T.	8	3	18	9	nw.	Prof. W. C. Goble.
Greensburg	Decatur	954	14	53.7	+ 1.2	82	30	26	24	38	2.35	− 0.88	1.21	T.	9	13	7	10	sw.	Chas. H. Ewing.
Heltonville	Lawrence	.....	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. L. Palmer.
Huntingburg	Dubois	.....	2	56.8	.....	84	29	31	22	40	4.43	.....	1.25	0.0	12	.....	.....	.....	.....	H. Dufendach.
Huntington	Huntington	741	17	52.2	+ 2.3	80	11	27	24	40	3.20	+ 0.31	0.80	10.8	13	13	4	13	sw.	Chas. McGrew.
Indianapolis	Marion	822	39	52.8	+ 0.4	83	29	27	33	34	2.92	− 0.55	0.68	0.3	13	6	10	14	sw.	U. S. Weather Bureau.
Jeffersonville	Clark	455	28	55.9	+ 0.1	84	30	33	24	35	4.92	+ 1.08	1.64	T.	14	9	13	8	w.	John C. Loomis.
Judyville	Warren	.....	3	51.1	.....	85	9	21	24	54	2.74	.....	0.71	0.5	11	10	9	11	sw.	Dale R. Warrick.

TABLE 1.—*Climatological data for April, 1910. District No. 3*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Indiana—Cont'd.																				
Kokomo	Howard	840	18	52.7[c]	+ 1.7	86[c]	30	27[c]	24	42[c]	3.18	− 0.02	0.70	0.0	9	11[b]	3[b]	14[b]	s.	John W. Doty.
Lafayette	Tippecanoe	617	31	51.6	+ 1.2	82	29	26	24	43	2.75	− 0.62	0.76	2.2	12	14	1	15	s.	Wm. J. Jones, jr.
Logansport	Cass	620	30	51.8	+ 1.0	85	29	28	24†	48	3.75	+ 0.48	1.12	0.0	11	14	2	14	e.	Chas. Massena.
Madison	Jefferson	460	18	55.9	+ 1.1	85	30	32	24†	44	3.34	+ 0.11	0.77	0.5	12	15	9	6	sw.	Dr. J. Cooperider.
Marengo	Crawford	363	28	55.0[a]	− 0.4	80[a]	14	30[a]	21†	41[a]	4.72[f]	.....	1.46[f]	T.[f]	11[f]	5[b]	9[b]	8[b]	w.	J. M. Johnson.
Marion	Grant	814	24	52.0	+ 1.3	83	29	25	24	48	4.28	− 0.03	0.95	7.7	11	11	6	13	s.	James F. Hood.
Markle	Huntington	814	15	50.6[c]	+ 1.6	76[c]	4	23[c]	13	45[c]	2.90[b]	.....	0.80[b]	5.0	7	12[b]	6[b]	10[b]	sw.	I. S. Shideler.
Mauzy	Rush	980	30	55.2[c]	+ 5.1	81[f]	29†	24[a]	24	41[f]	3.30	+ 0.11	0.80	2.0	10	11	8	11	sw.	Elwood Kirkwood.
Moores Hill	Dearborn	.....	9	55.0	.....	83	29†	28	24	37	2.35	.....	0.47	T.	13	14	1	15	sw.	W. S. Bigney.
Mount Vernon	Posey	410	24	.....	.....	.....	.....	.....	.....	.....	4.88	+ 0.36	1.08	9.5	15	.....	.....	.....	.....	Chas. M. Spencer.
Paoli	Orange	611	13	54.3	+ 1.0	82	30	30	24†	40	4.38	+ 1.04	1.09	1.0	13	10	9	11	sw.	James A. Gillum.
Princeton	Gibson	481	28	54.2	− 0.2	83	30	28	24	38	2.90	− 0.41	0.85	5.0	10	15	6	9	.....	Elisha Jones.
Richmond	Wayne	972	25	52.2	+ 2.1	83	29	24	24	49	3.06	+ 0.13	0.83	3.1	11	11	10	9	.....	Walter Vossler.
Rochester	Fulton	775	7	51.8	.....	76	29	28	24	35	3.68	.....	0.81	6.2	12	14	4	12	.....	G. P. Keith.
Rockville	Parke	722	24	51.2	− 1.1	79	10	27	23	37	3.17	− 0.32	0.93	T.	14	9	6	15	s.	Dr. W. N. Wirt.
Rome	Perry	370	7	57.5	.....	85	10†	32	24	43	6.07	.....	1.96	T.	15	11	6	13	w.	Adam Anspach.
Salamonia	Jay	.....	5	51.8	.....	83	29	24	8	45	2.66	.....	0.57	3.0	12	10	5	15	sw.	Chas. V. Skinner.
Salem	Washington	717	17	54.1	+ 1.1	84	30	28	24	41	5.62	+ 2.30	1.65	2.0	14	7	15	8	w.	Emmet S. Allen.
Scottsburg	Scott	570	16	55.0	+ 0.4	86	30	33	24†	39	4.22	+ 1.26	1.08	0.5	12	10	9	11	sw.	Frank H. Park.
Seymour	Jackson	610	23	55.4	+ 1.5	84	30†	30	24	42	3.62	+ 0.19	1.08	0.3	14	7	19	4	w.	J. Robt. Blair.
Shelbyville	Shelby	.....	6	53.4	.....	84	29	28	24	41	3.37	.....	0.91	0.0	15	4	21	5	sw.	B. F. Crouch.
Terre Haute	Vigo	498	20	55.6	+ 1.6	84	29	27	24	33	3.10	− 0.58	1.20	0.5	13	13	5	12	sw.	Prof. R. G. Gillum.
Veedersburg	Fountain	612	11	53.6	+ 2.1	83	29†	23	24	43	2.68	+ 0.06	0.90	T.	15	15	7	8	s.	L. A. Culver, jr.
Vevay	Switzerland	525	29	55.8	+ 0.4	84	30	32	24	36	2.25	− 1.05	0.90	T.	7	7	12	11	sw.	Miss Frederica Boerner.
Vincennes	Knox	431	18	54.8	+ 0.2	87	30	28	24	40	4.41	+ 0.53	1.35	T.	15	12	3	15	s.	Garrett V. List.
Washington	Daviess	484	14	54.4	+ 1.4	82	30	29	24	34	4.60	+ 1.07	1.25	T.	17	17	0	13	sc.	Homer B. Turrell.
Whitestown	Boone	.....	2	51.6	.....	80	29	25	24	37	3.83	.....	0.69	5.5	15	9	14	7	sw.	C. A. Stevenson.
Winona Lake	Kosciusko	.....	3	52.3	.....	83	29	26	24	46	3.90	.....	0.80	5.5	15	8	10	12	sw.	Rev. Albert A. Young.
Worthington	Greene	526	28	54.9	+ 1.1	85	30	28	24	41	3.29	− 0.23	0.58	T.	14	11	13	6	sw.	D. W. Solliday.
Illinois.																				
Albion	Edwards	531	19	55.1	+ 0.1	86	29	28	24	40	3.48	+ 0.04	0.75	3.2	13	13	5	12	sw.	B. F. Michels.
Charleston	Coles	720	25	53.2	+ 0.1	85	29	26	24	40	2.09	− 1.17	0.50	2.0	13	7	12	11	s.	Jacob B. Daisy.
Equality	Gallatin	421	12	57.4	+ 1.5	85	29	29	24	37	5.30	+ 1.55	1.37	8.0	15	15	6	9	s.	Dr. L. W. Gordon.
Fairfield	Wayne	495	17	57.2	+ 1.8	87	29	26	24	43	3.20	+ 0.09	0.81	4.0‖	13	13	0	17	nw.	Geo. A. Tromly.
Flora	Clay	495	24	55.6	+ 1.2	88	30	28	24	42	3.93	+ 0.19	1.51	1.5	13	11	9	10	nw.	Jos. S. Peak.
Golconda	Pope	500	32	57.3	− 0.3	85	30	30	23†	39	6.40	+ 2.49	2.02	5.5	13	12	5	13	sw.	Dr. D. Lawrence.
Hoopeston	Vermilion	715	8	52.7	.....	85	29	23	24	41	2.46	.....	0.56	6.9	15	15	3	12	.....	S. F. Hoskinson.
McLeansboro	Hamilton	462	27	54.8	− 0.7	86	10	28	24	40	2.45	− 1.07	0.59	5.0	14	5	4	11	w.	C. C. Judd.
Martinsville	Clark	630	22	.....	.....	.....	.....	.....	.....	.....	2.42‖	.....	.....	.....	.....	.....	.....	.....	.....	G. M. Daugherty.
Mount Carmel	Wabash	424	9	55.0	.....	85	30	29	24	40	3.68	− 0.01	0.64	2.2	16	.....	.....	.....	.....	Mrs. H. M. Phillips.
New Burnside	Johnson	556	15	55.8	− 0.6	83	29	28	24†	35	4.80	+ 0.90	1.65	5.0	10	14	1	15	s	Geo. Harris.
Olney	Richland	486	23	55.8	+ 1.0	86	30	29	24	38	3.79	+ 0.18	0.97	1.7	12	8	8	14	w.	Victor E. Phillips.
Palestine	Crawford	500	28	55.6	+ 1.6	84	30	27	24	39	2.53	− 1.02	0.45	0.6	13	8	9	13	sw.	Duane Shaw.
Paris	Edgar	600	17	53.4	+ 2.2	83	29	25	24	37	3.59	+ 0.17	1.10	T.	11	12	10	8	sw.	H. P. Twyman.
Philo	Champaign	700	26	51.4	+ 0.2	85	29	25	24	42	2.80	− 0.51	0.67	3.0	12	12	8	10	sw.	H. A. Burr.
Rantoul	....do	768	19	52.5	+ 2.0	87	29	21	24	43	2.72	− 0.79	0.57	7.0	14	13	5	12	sc.	Wm. Breiner.
Robinson	Crawford	500	10	54.0	+ 1.9	84	30	27	24	34	2.63	− 1.10	0.70	1.2	12	13	7	10	w.	A. P. Woodworth.
Sumner§	Lawrence	459	2	55.0	.....	83	30	28	24	35	3.53	.....	1.10	4.0	12	11	0	19	s.	O. A. Fyffe.
Tuscola	Douglas	644	17	52.7[b]	+ 1.3	86[b]	29	25[b]	24	46[b]	3.11	− 0.43	0.82	1.0	12	13	5	12	sw.	E. W. Lester.
Urbana§	Champaign	725	8	52.0	.....	84	29	23	23†	39	1.57	.....	0.46	4.5	13	6	18	6	sw.	Prof. J. G. Mosier.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for April, 1910. District No. 3, Ohio Valley.*

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
New York.																																	
Allegany	Allegheny				.17			.06				T.				.26		.13	.85	.40	.20	.21		.06	.44	1.05	.64			.28			4.75
Bolivar	do				.24			.08	T.	T.							.18	.12	.95	.58	.12	.12		.05	1.05	.82	.89			.27	T.		5.47
Franklinville	do			T.	.33		T.	.05		T.						T.	.09	.07	.56	.56	.31	.67		.10	.75	.76	.70			.12	T.		5.07
Olean	do				.12	.04	T.	T.	.02							*	.34	T.	.82	.14	.42	.30	.01	*	.70	1.10	.58	.14		*	.24		4.97
Pennsylvania.																																	
Aleppo	Ohio			.05	.45		.20									.40	.07	.26	.05	.27	.35	.30		T.	.44	T.	.20	.06					3.10
Baldwin	Allegheny				.54	.10	.07	.12								.12		T.	T.	.41	.65	.13		.04	*	1.20	.12			.13			3.63
Beaver Dam	Ohio	T.			T.	.45	.02	.09	T.								.12	.05	.14	.30	.22	.08	.02		.36	.28	.07	.01			.06		2.27
Bradford	Allegheny				.18	T.		.05					.13			.18	.07	.30	.45	.59	.10	.09		.25	.69	1.15	.17			.21			4.61
California	Monongahela																																
Clarion	Allegheny				T.	.76	T.	.08	T.								.18	T.	.40	.30	.04	.42	.04	T.	.10	1.10	.20				T.		3.62
Claysville	Ohio			T.	.04		.05	.13								.30	.10	.18	.07	.34	.50	.22			.41	.04	.27	T.					2.65
Confluence	Youghiogheny				.16	.10	T.	.20	T.								.18	.40	.24	.20	.16	.42	.08		.20	.86	.14	.04					3.38
Davis Island Dam	Ohio	T.			.03	.18	.04	.12	.01	T.							.13	.02	.10	.19	.27	.38	.02	T.	.13	.71	.09	T.			.04		2.46
Derry Station	Allegheny			.03	.06		.02	.07										.09	.48	.25	.28	.17		.10	.18	1.10	.17			.09			3.41
Franklin	do				.06	.78	.04	.08	.02								.08	.04	.04	.34	.08	.18	.04	T.	.10	1.20	.14	.02			.06		3.30
Freeport	do				.02	.20	.07	.07	T.								.14	T.	.09	.37	.28	.57		.03	.18	1.20	.17				.12		3.51
Greensboro	Monongahela				.08	.22	.02	.08	T.								.18	.04	.20	.22	.14	.30	.20	T.	.28	.28	.04				T.		2.28
Greensburg	Youghiogheny			.02	.09	T.	.06	.13								.38	T.	.05	.23	.29	.30	.20		.05	.23	.98	.10			.07			3.18
Greenville	Ohio			T.	.83	.05	.01	.27		T.						.04	.01	.05	T.	.47	.19	.07		.08	.10	1.31	.16	.17		.11			3.92
Grove City	do			T.	.84	.09	.03	.19					T.			.09	T.	.02		.45	.28	.02			.12	1.37	.19			.11			3.86
Herrs Island Dam	Allegheny	T.			.01	.31	.03	.10	.01	T.							.12	.01	.07	.23	.25	.41	.02	T.	.15	.73	.11	.02			.03		2.61
Indiana	do				.15	.08		T.								.22	.10	.60	.30	.05	.43	.38		.06	.14	.90				.06			3.47
Irwin	Monongahela			.06	.13		.03	.05								.33		.15	.30	.01	.40	.19		.06	.19	.96	.16			.05			3.07
Johnstown	Allegheny	T.			.11	.01	T.	.04	.04	.12							.24	.46	1.02	.28	.11	.49	.03	.01	.11	.78	.21	.06	T.			.16		4.28
Lock No. 4	Monongahela				T.	.05	.04	.05									.60	.02	.15	.25	.43	.35	.06	.03	.20	.52	.08				T.		2.83
Lycippus	Allegheny			.04	.07		T.	T.								T.	.40	.10	.50	.31	.35	.34		.07	.32	1.13	.12			.14			3.89
Parkers Landing	do				T.	.60	.04	.02	T.	.04			T.				.06	T.	T.	.38	.12	.32	.02	T.	.04	1.24	.12	.02			.08		3.10
Pittsburg	Ohio			T.	.40		.07	.07								.11	T.	.07	.06	.09	.29	.16		.12	.13	.62	T.			.02			2.21
Saegerstown	Allegheny																																
St. Marys	do			T.	.35	T.	T.	T.				.12				.16	.35	.22	.44	.19	.18			.16	.55	.28		.10		.26			3.36
Saltsburg	do	T.			.04	.24	.04	.12	.14	T.							.26	.01	.24	.46	.10	.44	.02	T.	.16	1.22	.08				.12		3.69
Skidmore	Ohio				.75			.20								T.		.10			.75					1.40	.20			.10			3.50
Somerset	Youghiogheny			.28	.10		.10	.25								.33	.15	.60	.40	.05	.30	.25	.30	.10	.15	1.12	.15			.26			4.89
Springdale	Allegheny				.62	.24	.05	.68		.33							.16		.03	.33	.24	.34	.02	.03	.11	1.02	.17				.10			2.97
Uniontown	Monongahela			.04	.25		.07	.06								.21	.03	.09	.06	.22	.45	.42		.10	.18	.50	.05			T.			2.73
Warren	Allegheny				.08	.34	.08	.22		T.			.08			.50		.30	.34	.06	.04	.18		.06	.44	.66	.36			.10			3.84
West Newton	Youghiogheny				.02	.12	.08	.06	T.								.50	T.	.12	.34	.16	.38	.04	T.	.18	.84	.10	T.	T.		T.			2.88
Maryland.																																	
Deer Park	Youghiogheny	.14		.19	.06			.10								.18	.40	.38	.18	.10	.22	.21		.50		.41	.15						3.22
Grantsville	do			.10	.30		.05	.10								.08	.45	.44	.43		.30	.39				1.20				.10			3.94
Oakland	do	.12		.19	.06			.20		T.						.13	.22	.28	.22	.12	.14	.23		.05	.42	.37	.20	.13		.03			3.11
West Virginia.																																	
Arbovale	Great Kanawha																																
Bancroft	do				.18	.08	.11	.04					.24	.59			.21	.10	.30	.37	.16	.43	.02	.15	.04		.39	.06	.02					3.49
Beckley	do	1.37						.75					.90	.40			1.00	1.25	.60	.50	.20	.60	.60	.60	.45								9.07
Ben's Run	Ohio				.02	.30		.05								.20	.16	.20	.09	.28	.35	.08			.32	.08	.34	.10						2.57
Bluefield	Great Kanawha					.60							.38	.69		.05		.20	.60	.20	.05	.08		.13	.36	.39	.15	.15						4.03
Brandonville	Monongahela				.60			.33									.20	.14	.19	T.	T.	.50	.11		.24	.35	.11	T.						2.77
Buckhannon	do	T.			.10			.27	.08				.09			.10	T.	.18	T.	.17	.30	.27	.04	.20	.20	.05	T.	.05						2.10
Cairo	Little Kanawha	.10				.18		.12					.12			.12	.17	.24	.04	.42	.27	.20	.09	.17			.63	.18						3.05
Central Station	Middle Island Creek	.08		.14	.06			.07	.02				.07			.19	.09	.22	.16	.39	.27	.15	T.	.12	.32	T.	.25	.07	T.					2.67
Charleston	Great Kanawha				.36			.08					.50	.55			T.	.48		.36	.22	.51					.27	.10						3.37
Creston	Little Kanawha	T.	.01		.35	T.	.03	.05					.23	.15			.18	.05	.18	.35	.05	.35	.10	.09	.23	T.	.25	.03	T.					2.68
Cuba	Sand Creek	.09		.06	.19		.03						.28			.17	.24	.24	.05	.20	.28	.11		.10	.05	T.	.72	.06	.06					2.95
Davis	Monongahela				.20			.30					.10				.10	.45			.10		.20	.35	.70			.10	.10					2.70
Doane	Big Sandy																																
Elisabeth	Little Kanawha																																
Elkhorn	Big Sandy		.26	1.64		.10						.78	.62			.11			T.	.35	.55	.10			.35	.25	.31	.28						5.70
Elkins	Monongahela	T.		.25	.04		.09	.06					.14			.12	.20	.18	.15	.02	.10	.20		.31	.18	.07	T.	.04						2.24
Fairmont	do	T.	.01		.32	.08	.01	.08									.06	T.	.22	.20	.10	.20	.10	.04	.46	.12	.16	.01			T.			2.17
Glenville	Little Kanawha				.24		T.		.23				T.	.28			.15		.33		.50	.28	.10	.18	.44	T.	.29							3.02
Grafton	Monongahela	.32		.03	.10		.04	.10					T.			.05	.01	.23	.02	.08	.20	.25		.09	.45	.82	.15							2.94
Green Sulphur Springs	Great Kanawha			.11	1.07		1.52						2.23	.25		.06	.04	.47	.04	.18	.11	.46	.03	.11	.09	.02	.10	.34	T.					7.23
Hinton	do		.06	.20	.66								.52	.70			.06	.32	.14	.18	.06	.22	.12	.10	.16	.08	.20	.18	.10					4.06
Huntington	Ohio	T.		.04	.18		.24						.74	.52			T.	.84	.08	.28	.18	.56		.08			.48	.08						4.30
Lewisburg	Great Kanawha			.37	.52		.04						.86	.17		T.	T.	.45	.07	.12	.03	.24	T.	.14	.27	T.		.43						3.71
Logan	Guyandotte			.23	.15		.20						.72	.20		.05	.10	.70	T.	.40	.35	.45		.10		.05	.10	.30						4.10
Lost Creek	Monongahela	.06	T.	.03	.07		T.	.03					T.			.10	.06	.41	.20	.07	.28	.24	T.	.03	T.	T.	.08	T.						1.66
Madison	Great Kanawha																																
Mannington	do	.01		.09	.22		.06	.10								.09	.06	.26	.16	.12	.35	.18		.05	.35	.02	.19	.01						2.32
Marlington	do			.51		.13							.50					.33			.29	.13		.23	.26	.12							2.50
Morgantown	Monongahela			.08	.28		.02	T.		T.						.22	.02	.18	.04	T.	.25	.28		.02	.31	.32	.04						2.06
Moundsville	Ohio			.01	.28		.06	.08								.30	.07	.28	.04	.33	.30	.12			.32	.03	.21	.02	T.	T.				2.45
New Cumberland	do			T.	.50		.15	T.								.25	T.	.20	T.	.20	.70	.05			.50	T.	.20	T.		T.				2.75
New Martinsville	do				.37			.19								.12	.17	.35	.11	.37	.46	.11			.44	.11	.25	.06						3.11
Nuttallburg	Great Kanawha			.12	.05								.42		.07	.10		.12	.07	T.	.10	.13	.05	.05	.17	T.	.08	.10						1.63
Parkersburg	Ohio	.01		.04	.12	T.	.05	.02				.01	.03			.08	.10	.16	.21	.04	.23	.01		.04	.01	.14	.56	.01						1.87
Parsons	Monongahela	T.		*	.30			.10										*	*	*	*	1.30			*	*	1.20	.07						2.97
Philippi	do	.21		.25	.06		.04	.12					.02			.08	T.	.20	.03	.06	.20	.13	T.	.07	.50	.23	.12	.02						2.34
Pickens	do			.30	.41			T.					.82			.14	.09	.31	.27	.37	.34	.40			*	*	1.20							4.65
Pineville	Guyandotte																																
Point Pleasant	Ohio	T.	.01		.12	T.	.02	.01					.22	.22			.10	.34	.26	.24	.26	.28		.04	T.		.84	.06						3.02
Powellton	Great Kanawha																																
Princeton	do		.30	1.35									1.44				.56	.30	.25	.10	.30		1.10	.10	.25	.10	.10						6.25
Robertsburg	do			T.	.18	.15	.04						.20	.52			.30	.43	.17	.17	.38	.41		.07			.72	.07	T.					3.81
Rowlesburg	Monongahela	T.	.16		.26	.04	T.	.20	.04								.10	.30	.16	.12	.06	.50	.20		.40	.18	.08	.02						2.82
Ryan	Great Kanawha			.07	.18		.09					T.	.67			.17	.05	.20	.16	.38	.38	.23		.10	.05	T.	.28	.13						3.14
St. Marys	Ohio	T.			.23	.20	.05	.04					T.				.18	.12	.19	.27	.15	.35		.05	.25	.01	.42	.16						2.67
Smithfield	Fishing Creek		.02		.06	.14	.41	.11									.11	.09	.16	1.38	.29	.28	.16		.42		.21							3.84
Spencer	Little Kanawha	T.			.20	.17	.05	T.					.15	.43		.26		.25	.25	.33	.30	.55	T.		.35	T.	.31	T.						3.60
Sutton	Great Kanawha																																
Terra Alta	Monongahela	T.		.33	.22			.16								.17	.82	.50	.18	.02	1.75	.27				.26				T.			4.68
Union	Great Kanawha				.85				T.				.30	.70				.10	.43	.19		.20		.10		.23	.16	.23	.05					3.54
Valley Fork	do																																
Webster Springs	do																																
Wellsburg	Ohio				.15		.02	T.								.19	.05	.22	.05	.35	.35	.12			.33	T.	.24		T.					1.98
Weston	Monongahela																																
Wheeling	Ohio	T.			.02	.02	.06	.08									.40	T.	.32	.44	.26	.40	.10	.01	.26	.04	.18	.06	T.		T.			2.65
Williamson	Big Sandy			.08	.28		.06						.28	.22			T.	.48	.04	.26	.22	.32					.18	.10	T.					2.52
Ohio.																																	
Amesville	Ohio			T.	.38		.08	.04								.22	.30	.41	.17	.19	.50	.05		.05	.04	T.	.50	.05						2.98
Bangorville	Muskingum			T.	1.53	T.	.15	.03									.14	1.03	.15	.37	.38	.01		T.	T.		.63		.15	T.				4.57
Bellefontaine	Great Miami			T.	.53	.11	.21	T.										.92	.09	.06	.71	.39					.44	.16						3.60

TABLE 2.—*Daily precipitation for April, 1910. District No. 5*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Ohio—Cont'd.																																	
Bladensburg	Muskingum																																
Cadiz	Ohio			T.	.53		.15	.04								.06	.05	.14	.05	.67	.55	.12			.25	.03	.17		T.	T.			2.81
Cambridge	Muskingum			T.	.35			.15										.46		.36	.56				.21	.23	.04						2.36
Camp Dennison	Ohio			.16	.06	.07	.09						.16				.44	.20	.14	.21	.07			.10			.05	.11					1.86
Canal Dover	Muskingum			T.	.28	.53	.05											.55		.40	.38				T.	.56		T.					2.75
Canton	...do				T.	.80	.06	.09										.16	.21	.60	.19	.10		.02	.30	.15	.25	.07			.02			3.02
Cardington	Scioto			T.	.86	T.	.22										.16	.76	.26	.26	.38						1.39	.07						4.43
Cincinnati	Ohio			.08	.06	.05	.04					.01	.11			T	.62	T.	.17	.20	T.		.17	T.			.13	.01						1.65
Circleville	Scioto			.20	.12	.17	.18	T.					T.					.70	.61	.14	.27	.24		.04			.87	.93						4.47
Clarington	Ohio			.06	.35		.08	.08								.22	.10	.34	.05	.35	.27	.22			.42	.05	.42	.05						3.06
Columbus	Scioto			.11	.07	.06	.02									.01	.31	.67	.15	.12	.26		T.	.02		.52	.18	.02						2.52
Coshocton‖	Muskingum				.10	.30	.11	.09									.02	.53	.19	.37	.34	.05		.03	.30		.10	.05						2.58
Dayton	Great Miami			.07	.13	.01	.22	T.					T.			T.	.15	.36	.02	.10	.51	.03		.11			.03	.11						1.85
Delaware	Scioto			.71	.16	T.	.20	T.									.20	.78	.24	.24	.54	T.		.03			1.32	.03		T.				4.45
Demos	Ohio			T.	.20		.06	.05								.39	.04	.16	.02	.30	.37	.12	.02		.22	.12	.22	.01	T.					2.30
Dennison	Muskingum			T.	.48		.10	.05								.01	.04	.26	.01	.32	.44	.05	.02		.32		.35	.02	.04	T.				2.51
Frankfort	Scioto				.70	T.	T.										.56	.42	.10		.40					T.	.55	.08						2.81
Garrettsville	Mahoning			T.	1.43	.16	.03	.10								T.	T.	.17	T.	.46	.28	T.			.21	.11	.14			.09				3.18
Granville	Muskingum	T.		T.	.10	.07	.10	.10									T.	.90	.23	.34	.34	.10		.02		T.	.53	.15			T.			2.98
Gratiot	...do			.02	.35		.16									.04	.16	.74	.05	.24	.45			.10	T.		.35	.03	T.					2.69
Green	Ohio	T.		T.		T.	.38						.60			.10				1.00	.49			T.		T.	.50	.15						3.22
Green Hill	Muskingum			T.	.31	T.	.03	T.								.02	T.	.14	.03	.35	.36	.12	T.	T.	.27	.06	.27	T.	T.	.02				1.98
Greenville	Great Miami			.02	.85		.24	.05									T.	.80	.05	.11	.84			.16				.16						3.28
Hillsboro	Scioto			.02	.14	T.	.06						.04				.70	.54	.18	.19	.30		T.				.59	.09						2.85
Ironton	Ohio			.29	.06		.10						.70			.10	.64	.75	.58	.08	.50	.13		.08		.02	T.	.43						4.46
Jacksonburg	Great Miami							.44									.84		.21	.31	.05		.30				.20						2.35
Kenton	Scioto				.49	.06	.04	T.									.12	.50	.20	.48	1.31			.04		.76		.01					4.01
Killbuck	Muskingum				.15	.18	.16									T.		.97		.47	.35			T.		.58			.05				2.91
Lancaster	Ohio			.05	.08	T.	.17	.03								.03	.23	.80	.20	.60	.05	.03		.06		.10	.85	.04						3.32
Lawshe	...do			.16	.04								.22			.06	.43	.53	.07	.04	.13	.15		.02		.02	.90	.10						2.87
McConnelsville	Muskingum			.02	.72	T.	.03									.15	.31	.50	.20	.19		T.		T.	.03	.14	.49	.50						3.28
Marietta	Ohio			.05	.25		.08	.01								.07	.12	.29	.03	.32	.22	.05			.14		.51	.05						2.19
Marion	Scioto			T.	.36		.25										.15	.86	.15	.30	.60						1.10	.08						3.85
Milfordton	Muskingum			T.	.12	T.	.14									T.	.14	.81	.10	.26	.45			T.		T.	.53							2.55
Milligan	...do			.12	.25	T.	.17									.07	.15	.48	.06	.22	.53	.02		.10			.43	.02						2.62
Millport	Ohio				.20	.20	.05	.03								T.		.15	T.	.41	.38	.10			.21	T.	.28		T.	.03				2.04
Nellie	Muskingum				T.	.12	.15										T.		1.00	.20	T.						.65	.08						2.20
New Alexandria	Ohio			T.					T.									T.		.40	1.20	T.			T.		T.	T.	T.	T.				1.60
New Berlin	Muskingum				.90	.24	.10	.06										.40		.50	.38	.05			.47	.04	.34	.04		.02				3.54
New Waterford	Ohio				.45	.50		.18								T.		.20				.85				.50			T.				2.68
Ohio State University	Scioto			.12	.10	.02	.14	T.								T.	.02	.77	.21	.14	.40			T.			.55	.07						2.54
Pataskala	Muskingum			.07	.19	.02	.20	.01								T.	.27	.75	.10	.23	.45			.03		.01	.53	.08						2.94
Philo(1)	...do			.02	.36		.16									.02	.06	.47	.03	.31	.36			.04	T.	.39	.06							2.28
Plattsburg	Great Miami			.22	.07		.10											.65	T.	.38	.86	.06		T.			.35							2.69
Pomeroy	Ohio	.05		.09	.12		.07	.03					.23				.13	.20	.43	.04	.18	.23	.07	.02	.04		.14	.65	.07						2.79
Portsmouth‖	...do	T.		.08	.13	.05	.15						.33	.27			.60	.70	.20	.10	.14	.38	.18		T.		.25	.10						3.66
Rittman	Muskingum				.62	.05	.03									T.		.10		.33	.35				.45		.10			.01				2.04
Shenandoah	...do				1.16		.08										.05	1.17	.14	.48	.55				.09		.62	.05	.04					4.43
Sidney	Great Miami			.20	.37	.12	.17	T.									.12	.39	.13	.62	.80	.04		.16	T.		.13	.02						3.27
Somerset‖	Muskingum			.05	.26	.26	.07	.06									.14	.65	.37	.11	.38	.28		.10	.01		.32	.08	.30	T.				3.44
Springfield	Great Miami			.27	.03	T.	.24										.11	.49	.20	.32	.72	.05		.02			.37	.04						2.86
Summerfield	Ohio			.04	.48		.10	.09								.40	.08	.33	.10	.39	.67	.10	.06	.02	.27	.04	.19	.10						3.46
Thurman	...do	T.					T.									.10	.40	.42	.33	.22	.39	T.		T.		.10	.42							2.38
Urbana	Great Miami			.40	.11	.02	.17										.15	.55	.19	.32	1.03			.08			.35	.75						4.12
Warren	Mahoning			T.	1.15		.09	T.					.04			T.	T.	.09	T.	.40	.12	.35			.47	.33	.06			.05				3.15
Waverly	Scioto	T.	T.	.03	.11	.05	.10	.02					.01	T.			.08	1.08	.12	.07	.29	.62	.02	.06			.30	.11						3.07
Waynesville	Great Miami			.15	.05		.20						.07				.32	.27	.11	.21	.24						.05	.26						1.93
Wooster	Muskingum			T.	.06	.20	.12									T.	.04	.85	T.	.79	.37	.05		.01	.25		.40	.05	.02	.01				3.22
Youngstown‖	Mahoning				.02	.83	.03	.05								.03			45		.10	.22	.06		.21	.33	.16				.10			2.59
Zanesville‖	Muskingum			T.	.08	.10	.08	.02									.01	.16	.33	.32	.18	.05		.03	T.	T.	.32	.10	T.					1.78
Virginia.																																	
Big Stone Gap	Tennessee			T.	.15	.48			.70				T.		.84	T.	.10	.20	.85	T.	.32			.25		.05	.30	.48						4.72
Blacksburg	Kanawha			.23	.55	.03							.07	.55	.43		T.	.14	.75	.09	.11	.33	.05		.20		.24	.06	.41						4.24
Burkes Garden	Tennessee	T.			.10	.55								1.03				T.	.70	.25			.40		T.	.52	.27	.10	.37	T.				4.29
Elk Knob	...do				.18	.06	.03	.29	.01					1.01	T.		.28	.08	.81	.08	.12	.13	T.		.23	.03	.17	.16	.35	.02				4.84
Galax	Kanawha			T.	1.90								T.	.50	.10		T.	.23	.27		.12	T.	.11		T.		.68		.10					4.01
Ivanhoe‖	...do			.03	.10	.61		.01						.04	1.16	.04		.03	.55	.15	.05	.04	.04	.06	T.	.18	.06	.54	.08	.13				3.90
Lebanon	...do				.10	.18		.10						.10				.29	.40		.30	.02			.02	.41	.03	.05	.22					3.14
Marion	Tennessee				.12			T.						.71	.43				.65	.10	.28	.13	.30			.53	.28		.20					3.73
Max Meadows	Kanawha	T.	T.	.85									T.	1.10	.05		T.	T.	.75	T.	T.	.12	.05	.25	.04	T.	.40	T.	.03					3.55
Mendota‖	Tennessee			.10	.06		.08							.82				.10	.50	.10	.32	.18			.35			.28						2.99
Radford‖	Kanawha		.38	T.	.78		T.							T.	1.08				.66	.20	.10		.30	.08		.50		.18	.22	T.				4.46
Speers Ferry‖	Tennessee						.36							.08	1.10			.62	.32			.48	T.		.26		.06	.26	.34					3.88
Wytheville	Kanawha	.27	T.	.55								.02	1.49	.04		T.	.08	.31	.10	.06	.02	.11		.21	.01	.37	.08	.07						3.79
North Carolina.																																	
Andrews	Tennessee	T.					.16	.29					.55	.30	.90		.30	.91	1.24	.01		.03			.26		.35	.09	.33					5.72
Asheville	...do	T.		.27			T.						T.	.23	T.		.02	.09	.50	.12	.01	.10			.12	T.	.26		T.					1.72
Banners Elk	...do			.10	.10		.20							.05	.20		.40	.21	.96	.04	.02	.20			T.	.23	.27		.14					3.12
Brevard	...do						.05	.08					T.	T.	.09		T.		1.33	.05	T.				T.		.47		.23					2.30
Bryson City‖	...do														.75	.61		.75	.95						35	.06	.03	.20	.30					4.00
Cullowhee	...do						.05	.08					T.	.10	.31		.18	.34	.67	.07	T.	.10			.07		.20	.02	.10					2.29
Hendersonville	...do		.04					.02						.11				.27	1.36	.05	T.				.06	.04	.40	T.						2.35
Highlands	...do						.20							.17				3.30									.60		.01					4.28
Hot Springs	...do						T.						T.	.50	.08		.30	.08	.73	.06	.07	.09			.26	.24	.26	.26	.29					3.22
Jefferson	Great Kanawha	.14						T.						.28	.38		.38	.12	.25	T.	T.				40	.03								1.98
Marshall	Tennessee			.05			.03	.05					.09		.22			.10	.67	.06	.06													1.33
Murphy‖	...do								.53									1.70	1.02				.20	.05		T.	.10		.20					3.80
Rock House	Savannah																																
Waynesville‖	Tennessee				.06			.26						.06	.36	.03		.17	1.27		.08	.04			.19	.03		.13	.06	.04					2.78
Georgia.																																	
Diamond	Tennessee						.45						.06	.04		1.09	2.11	.10	T.	T.				.25	*	.47	*	.54					5.11
LaFayette	...do															1.37	1.75									.09	.19		.20					3.60
Alabama.																																	
Bridgeport‖	Tennessee																1.07	.75						.15			.10		.30					2.37
Decatur‖	...do				.09		.03	.40					T.		.22		T.	1.84	.33			.04		.08			.01	.04						3.08
Florence	...do		.02				.44								.11		.17	.76						.15			.02							1.67
Guntersville‖	...do		.01	T.				.02						.02	.36		.01	.78	.58		T.	.02		.02		T.	T.	.02	.06					1.90
Madison	...do		T.				.26							.22			1.16	.60			T.	.14				.06	T.	.06						2.50
Riverton‖	...do				T.		.60						T.	.08	.07		3.25	1.60	.24			.07		.24				.02						6.17
Scottsboro	...do				.07		T.						T.	T.			.35	.65	.02					.12		T.	.02	.10						1.33
Tuscumbia‖	...do				.03		.35								.07		.04	.60	.18			.04		.10				.02						1.43
Tennessee.																																	
Ashwood	Tennessee			T.			.30						T.	T.			3.65	.85		T.				.15	T.	.05	T.	.10						5.20
Benton	...do					T.	.75						T.	.05	T.		.84	.72	.65	.08	.02	T.			.24		.51	.18	.28					4.32

TABLE 2.—*Daily precipitation for April, 1910. District No. 3*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
***Tennessee*—Cont'd.**																																	
Birds Bridge‖	Tennessee						.20						.10	1.23			.34	1.13	.04	.10	.05			.21			.19	.22	.15				3.96
Bluff City‖	...do			T.								T.	1.20			.26	.58	.08	.10	.08			.18			.08	.18	.08				2.82
Byrdstown	Cumberland			.80								.40			1.00	1.00		.30	.30						1.20	.20	.40					5.70
Carthage‖	...do			.01	.37	.04	.21					.19	.30		1.14	.36	.48	.04	.11	.05			.42		.02	.30	.35	.47	.03			4.89
Cedar Hill	...do	T.	.02	.70	T.							.65			2.50	1.10	T.	.25	.20			.40		.20	.50	.20	.30					7.02
Celina‖	Cumberland				.43		.08					.17	.38		.83	.63	.74	.03	.10				.46		.18	.50	.34	.18				5.05
Center Point	Tennessee			T.		.12	T.					T.	.50	.20	3.75	.45	T.			T.		.18			.32	.40					5.92
Charleston‖	...do						.02						.07	.50		.66	.98		.05				.11	T.	.24	.60	.05	.07				3.35
Chattanooga	...do		T.			.02						.01	.01	T.	1.23	1.06	.03	T.	T.	.01		.09		.05	.55	.02	.22					3.30
Clarksville	Cumberland		T.	.35	.04	.15						.13	.69		1.82	.71	T.	.20	.06	.01		.11		.08	.34	.05	.08					4.82
Clinton‖	Tennessee			.05			.15						.05	.75		1.20	.75	.03	T.	.05			.25	.05	.35	.75	.25	.20				4.88
Dandridge‖	...do								.10					.90		.50	.84	.10	.04				.14	.10	.68	.20	.14					3.74
Decatur	...do					T.	.03					T.	.13	.50		.80	.35	.90	T.	.02			.10		.61	.14	.22					3.80
Dickson	Cumberland					.64								.84		2.69	.71		.06				.23	.03	.21	.12	.10					5.63
Dover	...do		T.	.25	T.	.25						.14	.83		T.	2.42	.37	T.	.23	T.	T.		.35	T.	.18	.20	T.	T.					5.22
Dunlap	Tennessee			.02		.01						.01	.01			1.05	.64	.58						.13		.50							2.95
Elizabethton‖	...do		T.				.15						.05	1.35			.16	.30	.10	.16	.11	.02		.15	.07	.01	.15	.15	.05				2.98
Erasmus	Cumberland			.18		T.						.14	.06	.04		1.51	.72	.50	.03	.02	T.			.59	.08	.68	.22	.48					5.25
Florence	...do	T.		.43		.13						.03	.07	T.		1.50	1.15		T.	T.				.04	.15	.40	.10	.10					4.10
Franklin	...do	T.	T.	.59	T.	.37						T.	.51			2.82	1.03	T.	.11	T.			T.	.15	T.	.43	.04						6.05
Halls Hill‖	...do			.12	.18		.15						T.	.35		1.44	1.20	.92	T.	T.	T.			.32		.15	.52	.32	T.				5.67
Harriman	Tennessee					T.						T.	.22			1.51	.80		T.	.13				.26		.20		1.12				4.24
Hohenwald	...do	.08		.05		.58							.60	.25		4.05	.88			.08				.32	T.	.12	.20	.08					7.29
Iron City	...do			T.		.54						T.	.05			73	1.21			T.	.08			.39	T.	.05	.02						3.07
Jefferson City	...do					.43							.09		.53	.58	.03	.54		.08	.06		.17				.54	.35					3.40
Johnsonville	...do		T.	.28		1.14						.06	.46			1.94	.60	T.	.04	T.	T.		.18		.02	.08	.08	.05					4.93
Jonesboro	...do	.10				.01	.11						.80	.60		.70	.10	.10	.10	.01	.10			.26		.13	.10	.54					3.76
Kingston‖	...do			.09			.10						.02	.06			1.65	.61		.03				.16		.06	.67	.07	.33				3.85
Knoxville	...do	T.				.38						.02	.88			.64	.58	.18	.12	.01			1.17	.01		.76	.20	.17					4.12
Lebanon	Cumberland	T.	.61			.02						.03	.41	.05	T.	2.02	1.05	.15	.08	.02	.01		T.	.30	.05	.50	.19	.24					5.73
Lewisburg	Tennessee			.31		.30						T.	.18		T.	2.39	.92	.01	.04	.04	.01				T.	.75	.06	.18					5.19
Loudon‖	...do						.03						.02	.27			.67	.94		.07	.08			.12		T.	.54	.12	.27				3.13
Lynnville	...do			.39		.60						T.	T.			2.99	.99	T.	.04	T.				.34	T.	.14	.04						5.53
McGhee‖	...do						.10						.04	.57			.53	.90		.10				.10		.05	.35	.17	.30				3.21
McMinnville	Cumberland			.12		.07						.02	.07	T.		1.80	.60	.25	.13	.04	T.			.38	.04	.70	.11	.36					4.69
Maryville	Tennessee					T.	.21						.51	.01		.50	.09	.66	.09	.07	.01			.03		.25	.12	.44					2.99
Mountain City	...do												1.10	.13		.19		.45	.06	.23	.09			.18	.11	.22		.24					3.00
Nashville	Cumberland	T.	T.	.54	T.	.18						.09	.46		.03	3.28	.76	.04	.02	.04			.15		T.	.32	.14	.05					6.10
Newport	Tennessee												1.20			.25	.30	.55	.15					.85		.20		.20					3.70
New River‖	Cumberland				.37		.07							.66			1.05	.75		.19	.12			.32			.98	.25	.39				5.15
Palmetto	Tennessee					.24								.15		2.28	.88							.40		T.	.44						4.39
Pinewood	...do			.22	.23								.87			3.25	.60		.03		T.			.20	.03	.14	.07	T.					5.64
Pope	...do			.14		.55							T.			1.20	.10				.11		.12		.03		T.	T.				5.25
Rogersville‖	...do		T.	.16	T.		.08						.03	.34			.26	.70	T.	.12	.04	T.		.36	.02	.01	.44	.34	.06				2.96
Rugby	Cumberland	.10	.10	.63	T.		.43					.05	1.01	.10		.95	.24	.77	.23	.25	.02	.03		.38	T.	1.00	.25	.45					6.99
Savannah	Tennessee	T.	T.	.05	T.	.46						T.	.58		T.	5.30	.67	T.		T.			18		T.	T.	.03					7.27
Sevierville	...do												1.37	.21		.62	.13	.66	.09					.36		.17	.04	.28				3.93
Sewanee	...do												.27			1.50									*	.50		.96				3.23
Sparta	Cumberland			.25	T.	T.						T.	T.	.50	1.07		.30	.56	.10	T.				.61	.50		.21					4.10
Springdale	Tennessee			.05		.06							.75			.70	.07	.87	.20						.42	.07	.46					3.65
Springville	...do		T.	.35	.01	.35						.10	.85	.01		2.29	.66	.02	.21	.01	.02		.16		.14	.25	.04	.07					5.54
Tazewell‖	...do			.15	.05		.18						.15	1.00			.85	1.03		.39	.33			.15		T.	.35	.60	.10				5.33
Tullahoma	...do					.19						T.	.11	.15		2.21	.75	.21	T.		T.			.25	T.	.20	.09	.12					4.28
Walling‖	Cumberland				.13									.05		10	1.40	1.10	.02	.12			1.00			.12	.65	.30	.15				5.14
Waynesboro	Tennessee	T.	T.	.05		.56						T.	.48		T.	6.94	.49	T.	.03	.05	.04		.18	.03	.04	.01	.08	.02					9.00
Wildersville	...do		.02		T.	.21						.06	.42			1.95	.45				.10		T.		T.	.10	.08					3.39
Worsham‖	Cumberland			.25	.25							.12	.88		.50	2.37	.37	.50		.12			.25			.37		.25				6.23
Yukon	Tennessee					.18							T.	.16		1.75	1.10			T.				.20		.10	.04	.08					3.61
Kentucky.																																	
Alpha	Cumberland			.28		T.						T.	.15			1.35	1.37		.25	.70			.36	.15	T.	.82	T.	.80					6.23
Anchorage	Ohio			.35		.35	T.					T.	1.44				1.97		.26	.37				.57			.25						5.56
Bardstown‖	Salt			.12	.23	.03	.10						.92	.53		.23	1.05	.46	.22	.10	.29			.36			T.	.40	.04				5.08
Beattyville	Kentucky				.40	T.	.10						.48	.56			.36	.68	.08	.18	.34			.22			.52	.46	.12				4.50
Beaverdam‖	Green	T.			.50		.45						.80	1.15		.28	1.50	.30	.39	.12	.06			.27		.25	T.	.43	T.				6.50
Berea	Kentucky			.05	.20							T.	.75			.70		1.25	.17	.23	.12		.11	.12		.12	.13	.10				3.40
Bowling Green‖	Green			.04	.40		.76						.64	.38		.78	.73	.73	.20	.02	.03			.30	.01	.43	T.	.20	.08				5.73
Burnside‖	Cumberland			T.	.42		.10						.18	.12		.16	.90	.86	.06	.14	.22			.22		T.	.66	.50	.20				4.74
Cadiz	...do			.55		.35						.10	.44			1.42	.90		.30				.28	.08		.18	.12					4.72
Calhoun	Green	T.		.31	.02	.42	.04					.19	1.22	.01		.86	2.21	T.	.38	.10			T.	.20	.30	.22	.29	.15				7.01
Catlettsburg‖	Big Sandy	T.		.24	.10	.18	T.						.76	.58			.12	.60	.12	.32	.16	.52		.08			.40	.10				4.28
Earlington‖	Green	T.			.47	T.	.27						1.10	.27		1.02	2.28	.37	.23	.05				.04	.25	.50	T.	.17				7.02
Edmonton	...do			.69	.05	.08						.10	.63	.02		1.65	.59	.62	.27	.30				.47	.08	.05	.23	.47				6.30
Eubank‖	Cumberland																																
Falmouth‖	Licking	T.		.09	.20	.02	.09	.03					.60	.09		T.	.56	.40	.10	T.	.20			.15			.10	.15					2.78
Farmers	...do			.50	.13	T.	.17						1.55			.30	.55	.53	.22	.13	.16	.02		.27		.10	.15	.24					5.02
Frankfort‖	Kentucky	T.	T.	.16	.06	T.	.01	T.					.85	.06		.03	.63	.40	.06	.04	.05			.17			T.	.42	T.				2.94
Franklin	Green			.68	.02	.49						.27	1.08			1.80	1.22		.26	.11				T.	.27	.34	.10					6.64
Greensburg‖	...do			.10	.60	.08	.14						.70	.55		.67	.54	.71	.21	.08	.38	.01		.38		.05		.47	.18				5.85
High Bridge‖	Kentucky			.30	.48	.05	.31	.01					1.04	.27		.09	.90	.62	.10	.08	.16			.25			.15	.49	.04				5.34
Hopkinsville	Cumberland			.10	.45	.10	.47					*	.67	.25		1.97	1.00	.39	.25	.05				.10		.30		.22	T.				6.32
Irvington	Ohio	T.		.61		.32						.13	1.12			.35	2.30		.05	.20	T.		T.	.29	.04	T.	.19	.27					5.87
Leitchfield	Green		*	.47		.48						*	1.27			.63	.45		*	.65			.60	T.			*	.81					5.36
Lexington	Kentucky			.53	.01	.24						.41	.54			.27	1.02	.07	.12	.16			.21			.27	.23	.14					4.22
Loretto	Salt			.64			T.					.05	1.24			.55	.70	1.10	.02	.38				.32	T.	T.	.50						5.50
Louisville	Ohio			.23	.01	.31	T.					.58	.35			.11	1.91	.20	.04	.18			.35	T.	T.		.22	.12					4.61
Marion	...do			.74	T.	.30						.19	.98			1.42	1.26	T.	.31	T.			.31	T.	.43	.28	.33	.07					6.62
Maysville‖	...do	T.		.23	.08	.08	.15	.02					.26	.26			.72	.88	.06	.12	.36	.08		.04			.09	.20	.04				3.67
Middlesboro	Cumberland			.34			.08						.90				.09	.93	.05	.14	.19			.39		.49	.25	.44					4.29
Mount Sterling‖	Licking	T.		.21	.37	.15	.12	T.					.67	.53		.03	.80	1.51	.08	.26	.24	T.			.21		.25	.43	.07				5.93
Owensboro‖	Ohio	.05		T.	.30	.14	.33					T.	.50	.65		.65	1.33	.55	.38	.20	.08			.25		.65	.20	.35					6.61
Owenton	Kentucky			.24	.08	.10	.05						.86				1.05		.39				.59	T.			.42						3.78
Paducah‖	Ohio				.06	.70	.20						.40	.34		1.60	2.00	.30	.20						.10	.80	.10	.10					6.90
Pikeville‖	Big Sandy				.02		.04						.20	.26			T.	.36	.12	.20	.30	.25	.04	T.			.15	.12	T.				2.06
Richmond‖	Kentucky			.25	.25	.02	.17	T.					.78	.34		.08	1.04	.95	.06	.15	.25			.18			.16	.41					5.09
St. John‖	Salt			.17	.47		.47						.84	.53		.45	1.25	.58	.31	.27	.46			.64		.07	.01	.52	.06				7.05
Scott	Licking			.10	.10	.08	.14						.32			T.	.54	.20	.20	.18	.02		T.	.21			.04	.13					2.26
Shelby City	Kentucky			.54	.05	.08	.09					T.	.96			.60	.81	.52	.17	.24	.07			T.		.37	.26	.45					5.21
Shelbyville‖	Salt		.03		.04	.43		.17	.20				.98	.20		.08	.85	.39	.22	T.	.15			.22			T.	.44	.05				4.45
Taylorsville	...do	T.		.48	T.	.11	T.					.03	1.12				1.07	.32	.25	.32	.01			.28			.12	.35					4.46
Williamsburg‖	Cumberland		T.		.50		.12						.06	.65		.05	.33	.76	.02	.25	.29			.33	.05		1.05	.33	.20				4.99
Williamstown‖	Licking	T.		.23	.03		.03	.05					.42	.17		T.	.53	.30	.10	.06	.15			.17				.18					2.42
Indiana.																																	
Anderson	West Fork, White			.37	T.	.14	.13					T.	T.			.07	.53	.24	.60	.40			.03	.19	T.		.20	.03					2.93
Bloomington	...do			.23	.09	.05	.49	T.					.18			.28	.34	.53	.35	.43	.15			.28	.05	.02	.04	.30					3.81

TABLE 2.—*Daily precipitation for April, 1910. District No. 3*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Indiana—Cont'd.																																	
Bluffton	Wabash			.26	.03	.10	.11									.06	.02	.43	.23	.70	.06		T.	.53	.02		.08						2.63
Butlerville	East Fork, White			.22	.09	.15	.11					T.	.18				.55		.31	.19				T.	.13		.18	.43					2.54
Cambridge City	Whitewater			.09	.62		.26	.06					.01			T.	.30	.77	.29	.14	.50			.51	T.			.20					3.75
Columbus	East Fork, White			.04	.10	.02	.26	.01					.15			.11	.20	.48	.33	.10	.33			.25	.02		.03	.25					2.68
Connersville	Whitewater			.41	T.	.15	.04						.09			T.	.79	.07	.40	.49	.04		T.	.29		T.	.25	T.					3.02
Delphi	Wabash			.12	T.	T.	.27	.04								.02	T.	.51	.36	.55				.38	.15		.07	.39					2.86
Eminence	West Fork, White																																
Evansville	Ohio		T.	.28	.01	.02	T.					.23	.42		.39	.76	.61	.25	.15	.05			.24	.05	.53		.27	.03					4.29
Farmersburg	Wabash												.05				.54	.13	T.	.45				.23	.20								1.60
Farmland	West Fork, White			.07	.39		.55	T.					T.			T.	.13	.70	.30	.26	.72			.34				.20					3.66
Greenfield	East Fork, White			.60	.05	.15	.05										.47	T.	.80	.36				T.			.40						2.88
Greensburg	do			.06		.35	.06					T.	.02				1.21		.31	.12				.15			.07						2.35
Heltonville	do																																
Huntingburg	Wabash			.07		.18	.15					.32			.75	1.25		.37	.47		.20		.11		.29	.27							4.43
Huntington	do			.40		.07	.15						.03			.12	.50	.10	.50	.80	T.		.10	.20	.03		.20						3.20
Indianapolis	West Fork, White			.48	.01	.35	.01									.14	.68	.28	.16	.35			.13	T.	.02	T.	.19	.12					2.92
Jeffersonville	Ohio			.22	.02	.40	.01					.17	.78			.09	1.64	.02	.32	.21			.65	T.	T.		.23	.16					4.92
Judyville	Wabash			.20	T.	T.	.30					.20					.71	.15	.13				.39	.10	.03	T.	.23	.10					2.74
Kokomo	do			.30	T.	.12	.20									T.	.40	.21	.63	.70			.32				.30	T.					3.18
Lafayette	do			.16	T.	T.	.19	.01					T.			.01	.02	.76	.27	.34				.46	.15	T.	.09	.29					2.75
Logansport	do			.05	.05		.52									.11		.52	.43	1.12				.41	.04		.06	.44					3.75
Madison	Ohio			.24	.17	.25	.02						.53				.77	.33	.32	T.				.35	.03		.08	.25					3.34
Marengo	do																																
Marion	Wabash			T.	.45		.28	.08								.12	T.	.95	.56	.75	.22			.60	.07			.20					4.28
Markle	do			.40	T.	T.	.20						T.			.30	T.	.40	.40	.80			T.	.40	T.		T.	T.					2.90
Mauzy	East Fork, White			.35		.40	T.						.11			T.	.80	.05	.41	.44			T.	.45			.20	.09					3.30
Moores Hill	Ohio			.21	.04	.09	.07						.21			.01	.33	.26	.47	.24			T.	.21	T.		.08	.13					2.35
Mount Vernon	do																																
Paoli	East Fork, White			.25		.40	.04					T.	1.09			.35	.85		.36	.37			.21	.05	.02		.14	.25					4.38
Princeton	Wabash			.10			.10						.85			.25	.43		.25	.20			.10	*	.30		.32						2.90
Richmond	Whitewater			.48	T.	.20	.13					.05					.83	.01	.40	.55	.04		.18	T.			.19						3.06
Rochester	Wabash			T.	T.	.27	.28									.14	.81	.30	.60	.41			.15	.02	.19	.02	.49						3.68
Rockville	do			.40	.03	.09	.22					T.				.01	.93	.18	.22	.43			.32	.06	.04		.12	.12					3.17
Rome	Ohio			.44	.07	.24	.06					.16	1.14			.26	1.96		.34	.40	.03			.34	.03		.30	.30					6.07
Salamonia	Wabash			.44	.08	.15	.05										.57	.05	.20	.57	.11		T.	.33			.10	.01					2.66
Salem	Ohio			.25	.04	.41	.03					.02	1.65			.16	1.35	T.	.41	.45			T.	.31	.02		.13	.19					5.62
Scottsburg	East Fork, White			.30	.03	T.						T.	1.08			.27	1.08		.45	.36			.08	.16	.05		.10	.26					4.22
Seymour	do			.19	.01	.31	.01						.45			.14	1.08		.48	.36			.07	.22	.04	.06	.20						3.62
Shelbyville	do			.34	T.	.24	.10					T.	.03			.08	.91	.02	.56	.35	.01		.13	.18	.11		.19	.12					3.37
Terre Haute	Wabash			.02		.30	.02									.02	1.20	.04	.32	.30			.30	.16	.06		.28	.08					3.10
Veedersburg	do			.17	.02	.01	.05						.11			.01	.90	.10	.25	.32			.08	.27	.04		.20	.15					2.68
Vevay	Ohio			.10	T.	.10	.20						.90			T.	.60	.15	T.	T.			T.	T.				.20					2.25
Vincennes	Wabash			.15	T.	.08	.13	T.					1.35	.05		.45	.30	.40	.30	.35				.25	.15	.05	.20	.20					4.41
Washington	West Fork, White			.09	.11	.03	.14	.01					1.25	.05		.40	.22	.48	.51	.42	.04			T.	.22		.26	.33	.04				4.60
Whitestown	do			.69	.05	.15	.35	.01								.14	.61	.14	.40	.52			.10	.14	.05		.20	.28					2.83
Winona Lake	Wabash			.18	.17	.10	.15									.14	.38	.30	.80	.39			.14	.52	.04	.07	.42	.10					3.90
Worthington	West Fork, White			.14		.05	.13						.16			.16	.58	.03	.43	.51			.25	.29	.17		.17	.22					3.29
Illinois.																																	
Albion	Wabash					.32	.11					.13	.31			.52	.75	.06	.26	.07			.21	.02	.30		.42						3.48
Charleston	do			.12	T.	.07	.04					T.			.50	.10	.27	.14	.20	.04			.19	.05	T.	.12	.25						2.09
Equality	do		T.	.01	.13	.49	T.					.14	.28			.73	.30	1.37	.21	.04			.22	T.	.80	.07	.47	.04					5.30
Fairfield	Ohio			.12		.32	.22					.22	.40			.42	.81	.05	.10				.04	.02	.42		.06						3.20
Flora	Wabash			.17	T.	.58	.06					.15	.04			.24	1.51	.08	.15	T.	T.		.41	T.	.15		.34	.05					3.93
Golconda	Ohio			.25	.21	.61						.20	.63			.92	2.02	T.	.22				.26		.62	.16	.26	.04					6.40
Hoopeston	Wabash			.03	.02	.07	.14						.01				.56	.11	.21	.15			.56	.10	.03	.04	.41	.02					2.46
McLeansboro	do			.06	T.	.33	.07						.10	.05		.13	.59	.35	.15	.02				.15	.04	.20	.21						2.45
Martinsville	do																																
Mt. Carmel‖	do			.06	T.	.10	.18	.06					.60	.04		.46	.64	.32	.28	.22				.12	.12	.12	.22	.14					3.68
New Burnside	Ohio				.18	.54	.06						.19			1.00	1.65	.38		T.	T.				.30	.20	.30						4.80
Olney	Wabash			.09	.11	.21							.74			*	1.37	.13	.23				.36	*	.18		.37						3.79
Palestine	do			.10	T.	T.	.08					.09	.11			.25	.45	.10	.18	.31			.33	T.	.06		.37	.10	T.				2.53
Paris‖	do			.10	.13	.12	T.	T.								.08	1.10	.50	.40	.38				.37	T.		.33	.08					3.59
Philo	do			.08		.12	T.									.58	.67	.17	.16	.02			.42	.05	.06	.10	.37						2.80
Rantoul	do			.03	.09	.04	.15						.57			.02	.21	.36	.22	.12				.24	.08		.53	.06					2.72
Robinson	do		.07		.03	.16						.23				.27	.37	.10	.31				.70	T.	.10	.20	.09						2.63
Sumner	do			.25	.10	.15							1.10			.47	.57	.08	.01	.02				*	.46		.22	.10					3.53
Tuscola‖	do			.08	T.	.04	.10									.33	.82	.34	.22	.18	T.			.35	.10		.35	.20					3.11
Urbana	do			.04	T.	.04	.02					.02				.06	.46	.01	.17	T.			.22	.06	T.	.11	.35	.01					1.57

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 3, Ohio Valley.*

Date.	Pennsylvania.				West Virginia.																Ohio.							
	Greenville.		Pittsburg.		Charleston.		Elkhorn.		Elkins.		Glenville.		Huntington.‡‡		Morgantown.		Parkersburg.		Wheeling.‡‡		Canton.		Cincinnati.		Columbus.		Dayton.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	68	27	63	43	72	50	74	42	67	42	74	46	73	48	62	38	65	43	70	35	66	32	70	50	68	42	70	38
2...	70	29	69	41	75	47	73	39	70	32	77	38	77	43	71	40	72	39	81	34	68	39	74	47	70	44	76	36
3...	68	39	65	52	75	54	70	51	64	48	69	50	72	47	62	53	63	55	67	38	68	43	73	54	71	53	74	41
4...	72	53	74	56	78	58	80	47	72	51	76	54	80	57	75	56	75	58	78	53	76	54	79	58	75	56	79	54
5...	82	46	83	60	83	53	79	50	84	43	88	46	83	50	80	56	84	54	86	51	79	53	76	53	79	54	77	59
6...	67	44	72	40	80	50	75	50	65	41	82	47	57	50	80	51	71	42	57	54	52	50	53	38	54	37	49	42
7...	45	31	40	34	54	38	56	35	41	32	50	27	60	35	51	33	50	36	50	37	38	32	60	38	52	32	57	33
8...	56	25	57	29	63	33	64	32	58	32	65	35	69	30	58	30	64	30	60	27	59	28	69	39	65	34	68	28
9...	60	36	65	47	76	40	73	35	69	32	78	31	79	32	69	45	73	40	74	29	60	39	76	50	68	49	74	36
10...	59	26	63	38	78	43	77	39	67	29	75	30	76	33	.....	.....	71	39	75	29	62	35	75	47	70	45	76	38
11...	76	44	77	45	81	42	74	39	78	33	85	35	83	41	79	34	80	43	84	34	76	37	78	50	80	51	81	42
12...	58	33	61	42	78	55	71	38	63	45	76	53	58	50	75	47	66	46	69	39	54	37	61	44	60	37	63	43
13...	62	23	65	37	72	45	67	49	70	34	75	35	72	40	69	31	70	37	78	31	64	28	70	36	68	31	71	30
14...	75	26	75	38	80	44	78	46	78	30	83	30	81	40	75	35	80	35	84	31	76	32	79	47	78	43	81	35
15...	76	35	75	50	80	52	71	42	74	39	78	41	76	42	76	54	75	51	78	32	70	47	76	62	73	60	76	48
16...	75	47	74	55	80	54	80	50	77	44	81	46	77	52	77	55	75	51	60	45	70	48	74	44	70	54	70	56
17...	70	46	58	46	80	45	77	43	59	45	75	41	60	46	65	45	71	42	56	40	51	42	60	42	55	37	58	40
18...	64	32	63	44	66	44	77	39	65	37	55	32	60	41	64	53	59	34	65	38	54	32	52	35	57	33	51	41
19...	48	32	51	32	58	33	73	30	41	32	42	36	46	34	59	32	45	33	48	33	43	31	44	34	46	34	42	33
20...	41	33	40	34	47	42	50	32	39	34	44	39	45	37	44	38	43	37	41	34	43	33	56	38	43	33	49	34
21...	46	37	47	35	50	41	48	36	39	34	69	35	58	39	42	35	47	40	52	37	49	35	59	41	56	37	60	37
22...	64	32	62	34	73	40	69	33	67	36	67	47	72	37	65	33	65	34	67	34	61	32	72	42	64	39	67	37
23...	56	45	58	45	71	48	68	43	57	40	56	35	60	40	62	45	64	40	61	37	54	42	45	31	58	33	47	41
24...	50	38	46	37	62	40	57	32	43	35	63	38	51	33	45	35	46	38	47	36	43	32	49	31	49	29	51	25
25...	54	39	59	38	59	41	57	36	58	37	56	37	55	33	50	38	58	40	65	36	54	33	56	36	52	35	57	30
26...	54	39	50	40	60	38	49	32	54	37	57	45	53	35	53	38	52	35	52	38	44	37	45	41	43	38	44	38
27...	61	36	60	44	60	44	52	38	52	39	59	41	57	42	60	41	59	44	68	36	57	35	55	41	56	40	57	39
28...	59	34	59	40	62	39	60	39	52	37	50	35	65	37	58	38	57	42	59	37	53	39	69	40	60	44	68	36
29...	67	44	73	50	82	43	79	40	74	37	81	38	84	41	74	47	83	48	77	41	75	43	82	54	80	48	85	46
30...	75	51	80	59	87	66	83	52	84	63	89	62	88	55	74	66	85	67	86	52	73	53	84	67	81	56	84	60
31...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mns	62.6	36.7	62.8	42.8	70.7	45.4	68.7	40.3	62.7	38.3	69.2	40.2	67.6	41.3	65.0[a]	42.8[a]	65.6	42.4	66.5	37.6	59.7	38.4	65.7	44.3	63.4	41.9	65.4	39.9

Date.	Ohio.				Virginia.				Asheville, N. C.		Decatur, Ala.‡‡		Tennessee.														Bentyville, Ky.‡‡	
	Marion.		Waverly.		Big Stone Gap.		Wytheville.						Chattanooga.		Jonesboro.		Knoxville.		Nashville.		Palmetto.		Sparta.		Waynesboro.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	71	36	75	41	74	49	73	46	78	51	82	53	79	59	79	45	75	56	71	52	76	50	81	48	78	52	77	41
2...	77	35	78	39	76	51	72	49	76	50	86	53	79	60	80	51	79	58	80	56	82	49	82	48	80	52	81	42
3...	74	47	75	34	74	54	67	53	76	48	82	53	82	61	80	54	80	59	73	58	75	61	78	59	78	59	77	50
4...	75	53	80	51	81	52	77	48	81	50	84	62	85	65	85	45	85	58	82	65	84	60	84	54	81	65	86	52
5...	78	57	82	44	79	48	77	48	73	60	75	64	72	57	80	49	78	60	73	52	78	61	74	64	73	55	85	45
6...	69	44	51	47	68	48	63	45	66	45	70	45	66	49	70	46	65	48	61	48	67	45	68	45	65	46	58	47
7...	53	30	59	33	61	38	54	38	58	40	73	39	71	44	64	40	66	44	69	40	72	33	70	39	70	34	65	30
8...	67	27	71	25	68	31	63	40	67	44	81	40	75	47	72	28	72	40	74	43	78	35	75	35	74	36	74	28
9...	72	48	80	30	77	41	72	39	74	39	81	40	81	48	78	31	80	44	80	46	83	40	80	37	80	40	78	30
10...	72	37	78	33	77	36	70	39	77	51	84	44	79	56	77	41	78	53	80	57	82	45	82	43	80	47	83	36
11...	81	46	84	37	76	42	74	38	74	45	82	59	79	57	80	42	75	51	77	59	80	57	80	49	75	57	77	36
12...	79	43	60	43	75	50	66	49	76	54	78	59	73	61	73	52	68	57	67	59	74	54	67	54	71	57	61	42
13...	71	26	75	32	71	54	65	44	60	49	78	54	74	59	68	52	70	58	73	56	77	56	72	50	71	55	75	42
14...	81	31	84	31	78	43	76	39	73	38	84	57	78	55	78	42	79	52	81	57	83	55	82	52	79	50	83	40
15...	78	55	75	38	77	44	70	43	74	55	77	57	70	58	80	43	65	56	74	58	74	60	73	58	77	58	74	50
16...	69	52	83	46	78	49	74	46	72	56	71	64	71	53	77	49	74	55	73	46	74	55	73	60	70	51	77	51
17...	68	36	61	39	69	47	65	45	60	45	68	42	66	48	70	48	63	48	64	43	66	50	69	41	66	37	68	40
18...	59	43	64	39	61	46	61	36	62	34	64	51	62	43	69	47	62	40	50	39	75	42	59	39	59	43	59	40
19...	43	32	47	29	58	35	39	31	42	33	58	46	50	38	64	39	45	37	52	38	54	37	48	36	53	39	43	33
20...	42	32	45	34	56	30	43	37	48	37	47	40	54	45	68	33	52	43	56	40	52	42	49	42	53	40	51	34
21...	60	34	60	35	58	30	48	37	54	41	74	36	70	43	69	33	64	44	73	44	75	37	55	40	73	34	62	40
22...	67	33	69	31	77	33	67	36	74	35	82	36	76	46	76	30	74	40	78	49	80	61	65	41	78	50	75	31
23...	59	37	57	35	61	45	59	40	59	37	65	44	60	39	64	46	57	40	49	37	72	42	72	41	60	41	55	40
24...	53	26	52	25	56	33	56	36	55	32	54	34	54	34	56	34	56	34	48	34	51	31	55	30	44	34	60	26
25...	57	37	60	28	52	36	47	31	42	32	48	32	39	32	52	33	45	33	49	32	49	27	39	32	42	30	50	31
26...	49	33	45	35	50	33	49	32	54	31	60	32	54	39	53	32	51	35	47	38	51	36	49	33	51	32	48	37
27...	60	38	59	39	50	39	49	38	50	40	66	34	53	44	50	40	50	43	58	43	60	40	51	41	64	43	53	38
28...	65	40	67	35	66	40	59	42	65	41	75	38	69	42	64	38	65	39	73	39	74	34	69	33	76	35	72	34
29...	83	46	83	39	78	40	72	37	80	42	87	47	83	47	69	38	81	45	85	52	84	48	72	40	84	42	83	38
30...	77	64	88	47	81	44	78	57	82	49	87	48	85	62	81	38	82	62	82	64	83	60	.....	42	82	61	86	49
31...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mns	67.0	39.9	68.2	36.5	68.8	42.0	63.5	41.3	66.1	43.5	73.4	46.6	69.6	49.7	70.7	41.3	67.9	47.7	68.4	48.1	72.2	46.9	68.6[a]	44.2	69.6	45.8	69.2	39.1

TABLE 3.—*Maximum and minimum temperature at selected stations, April, 1910. District No. 3*—Continued.

Date.	Kentucky.														Indiana.												Philo, Ill.	
	Bowling Green. ‡‡		Earlington. ‡‡		Greensburg. ‡‡		Lexington.		Louisville.		Maysville. ‡‡		Williamsburg. ‡‡		Butlerville.		Evansville.		Indianapolis.		Kokomo.		Rockville.		Worthington.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	80	46	74	49	76	43	69	51	72	52	72	43	62	46	73	42	71	53	68	44	69	32	68	39	72	40	70	33
2	87	48	82	41	76	43	75	51	75	49	79	37	.....	48	75	40	74	51	70	48	74	32	64	42	74	40	73	33
3	73	58	73	42	70	45	70	53	73	58	75	37	.....	.....	73	53	68	60	71	54	72	46	68	53	74	56	70	53
4	85	58	80	60	82	54	79	59	80	62	82	51	.....	.....	80	49	76	64	75	57	75	46	73	59	78	61	78	57
5	75	60	70	66	76	56	75	50	75	48	81	49	78	.....	75	55	71	47	72	47	73	53	68	54	72	60	68	44
6	55	44	50	45	54	44	50	38	50	43	52	47	63	47	55	39	49	44	47	36	54	37	55	38	60	42	45	35
7	73	34	71	31	76	30	59	36	65	40	62	30	66	33	62	31	67	40	59	35	58	30	55	33	66	32	67	28
8	80	48	79	35	75	32	67	41	73	43	72	29	73	31	73	34	75	46	70	41	71	30	64	41	76	36	78	39
9	85	42	84	37	82	34	75	51	80	52	79	31	80	35	77	51	79	55	72	53	71	48	73	49	78	46	76	42
10	85	47	84	43	80	38	74	51	80	52	80	33	80	39	80	42	80	54	77	48	78	38	79	42	82	42	80	39
11	82	50	79	49	82	39	73	56	78	52	82	34	78	40	77	52	76	57	76	55	81	46	74	54	78	45	76	44
12	66	52	63	57	62	42	58	48	59	50	58	39	65	38	63	45	60	54	61	41	.....	.....	63	47	65	50	64	47
13	80	46	76	45	72	43	67	39	70	42	75	37	75	37	73	37	71	45	68	34	.....	.....	60	35	74	37	72	30
14	86	50	83	46	82	43	78	54	82	51	84	36	80	45	80	48	80	54	77	49	.....	.....	68	48	82	41	80	41
15	80	54	81	55	75	47	71	57	77	62	77	37	70	47	77	61	77	62	71	59	78	58	69	60	75	60	75	57
16	75	58	69	61	78	56	74	44	74	45	75	52	77	52	72	45	69	44	69	39	73	43	67	39	72	42	63	38
17	67	36	65	38	67	36	59	41	63	40	65	38	65	44	58	35	59	40	53	33	70	33	50	35	59	36	43	32
18	48	41	46	36	48	40	51	34	44	36	56	41	60	46	56	33	41	36	40	32	48	32	37	31	44	32	36	31
19	55	34	54	35	51	33	44	32	56	34	43	28	42	33	45	32	56	38	49	32	52	32	50	32	50	33	52	33
20	59	40	60	39	56	33	52	37	57	41	54	36	51	35	58	36	59	41	58	37	60	35	59	38	59	39	57	37
21	76	40	71	38	66	37	58	41	65	44	62	38	62	42	64	35	68	47	61	38	65	32	58	35	68	33	67	32
22	80	45	75	45	76	38	71	42	75	47	76	34	76	35	68	44	70	47	65	42	65	44	58	44	74	49	65	41
23	50	42	41	38	49	38	47	30	47	34	52	36	56	39	57	31	47	32	42	27	62	29	44	27	50	31	45	26
24	54	30	36	32	53	27	49	28	51	33	56	25	57	28	51	28	40	30	46	28	56	27	40	25	47	28	42	25
25	55	32	55	32	53	31	53	34	56	34	60	28	43	33	54	31	54	34	48	33	47	31	46	32	56	31	41	31
26	46	36	47	35	49	36	45	38	44	41	48	30	50	37	47	37	44	39	41	36	46	34	42	34	44	37	43	32
27	61	38	59	39	53	37	49	39	54	43	57	39	50	41	55	38	56	44	54	41	58	38	48	41	55	41	55	43
28	76	34	77	35	73	30	66	41	72	40	69	34	72	33	71	35	71	42	69	42	70	38	61	40	71	35	75	40
29	86	48	85	39	83	32	79	50	85	57	83	36	80	38	83	53	80	58	83	56	84	49	77	54	84	53	85	55
30	88	57	86	60	83	46	81	63	85	65	87	56	87	50	84	65	81	66	79	60	86	57	74	60	85	60	73	56
31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mns	71.6	44.9	68.5	43.4	68.6	39.4	63.9	44.3	67.2	46.3	68.4	37.4	66.6°	39.7°	67.2	41.9	65.6	47.5	63.0	42.6	66.5°	38.9°	60.4	42.0	67.5	42.3	63.8	39.1

Climatological Data for April, 1910.

DISTRICT No. 4, LAKE REGION.

Prof. HENRY J. COX District Editor

GENERAL SUMMARY.

While in Climatological District No. 4, the month of April, 1910, was, as a whole, warmer and wetter than the average, yet the comparatively severe weather and heavy snows in the southwestern sections, during the latter half of the period, which accompanied storms of quite unusual character, caused considerable damage to vegetation, and interfered somewhat with wire communication and train service. The amount of snow which fell on the western shore of Lake Michigan and in portions of Indiana and Ohio during the passage of these storms was excessive, and in many instances far exceeded all previous records for April snows. Owing to the advanced state of vegetation generally, due to the favorable weather of March and the first half of April, the comparatively low temperatures experienced during the last 2 weeks of the month wrought a great deal of damage to the young shoots and blossoms of trees, but the slow return to warm weather rendered the injury less severe that would otherwise have been the case. Vines and grass growth escaped damage generally because of the heavy snowfall, which gave protection from the low temperatures. Throughout the eastern portions of the district the weather continued more favorable during this period, and at the end of the month vegetation was progressing rapidly, with the season about 10 days earlier than the average.

The storms referred to in the above paragraph as unusual were two in number, although other disturbances crossed the Lake region during the month. The first of these unusual storms reached the western portions of the district on the morning of the 15th, after a remarkably slow advance from the far west covering more than a week's time, during which it maintained a distinct trough shape. This trough shape was gradually lost in its advance on the 15th and 16th, and by the evening of the 17th the center of the disturbance, which was now of more or less circular proportions, was at Green Bay. During the next 12 hours, however, a retrograde motion carried the storm center to St. Paul, from which point it moved southeastward and eastward along the southern boundary of the district. A high area was centered over the lower St. Lawrence which blocked its progress in that direction, and a second slight retrogression occurred in the lower Lake region during the 19–20th. Its center passed into the Atlantic north of the 40th parallel on the morning of the 22d, just as the second storm reached the western borders of the district.

This second storm had approached in much the same manner as had the preceding disturbance, and lost its trough shape during the 22d, on the evening of which day it was centered at Grand Haven. It remained stationary during the next 12 hours, however, and the gradient toward the northwest increased considerably, there being a difference of 1.1 inch of pressure between Grand Haven and Winnipeg, Manitoba. By the evening of the 22d the center had moved backward to Madison, from which point it advanced rapidly eastward and joined forces in the Atlantic States with a "low" that had appeared on the southeastern coast. A second retrograde movement on the 25-26th brought the center again to Grand Haven, whence it passed southward over Kentucky.

Both these storms were accompanied by general rains and snows over the southern, central, and eastern portions of the district. They were followed by low temperatures, and together were responsible for practically all the damage to vegetation and interruption to communication mentioned above.

TEMPERATURE.

The mean temperature ranged from 3° to 6° above the normal in all portions of the district, the departures being least over the Ohio and Indiana sections, and greatest in the Upper Michigan Peninsula, and in northeastern New York and northern Vermont. Extreme departures were as follows: Mount Iron, Minn., +6.9°; Humboldt, Mich., +9.7°; Harrison, Mich., +7.2°; Plattsburg, N. Y., +7.0°; Tupper Lake, N. Y., +6.6°; and Burlington, Vt., +6.5°.

The month opened with high temperatures in all portions of the district; and, except for a cool period on the 7-13th over the sections from Ohio eastward, warm weather continued until after the middle of the month. The warmest period, using the daily normal temperatures as the basis for comparison, was that of the 3d-6th, when the departures ranged from +20° to +29° in all parts of the district. During this period were recorded the highest temperatures of the month over the sections from Erie, Pa., eastward, as well as in localities of the Upper Michigan Peninsula. Over the remainder of the Lake Superior region and Lower Michigan the absolute maximum temperatures occurred on the 13-15th, while over northern Ohio, northern Indiana, and the western shore of Lake Michigan the highest readings were made generally on the 29th. The absolute maximum temperature for the district was 88°, recorded at Fremont, Ohio, on the 15th, while the lowest monthly maximum was 55° at Whitefish Point, Mich.

From the 7th to the 13th an area of high pressure drifted slowly across the district, bringing the lowest temperatures of the month to the Lower Peninsula of Michigan, northeastern Indiana, and the remainder of the district lying to the eastward. These temperatures, except at stations located immediately on the lake shores, were considerably below the freezing point, the lowest being 12° at Gabriels, N. Y. Over the remaining portions of the district the coldest weather occurred on the 23d-24th, the temperatures ranging from 6° to 20° below freezing, the latter figure being recorded at several stations in the Lake Superior region.

On the last day of the month the temperatures were again above the normal in all sections.

PRECIPITATION.

Over the western half of the Lake Superior region, localities of the southern Michigan Peninsula, and the greater portion of northeastern New York State the precipitation was somewhat below the average for April. Elsewhere the amounts exceeded the normal values, the excess reaching between 2 and 3 inches in the Fox River Valley of Wisconsin, north-central Ohio, and western New York.

The first 2 weeks of the month were comparatively dry from Indiana northward and westward, although a distinct period of rainfall occurred on the 3d-6th, during which an inch or more was recorded at many stations. Throughout the remainder of the month, and over the eastern portions of the district during the entire month, precipitation was frequent; so that, except in the vicinity of western Superior, the deficiency of the first 2 weeks was more than made up by the 25th, and the excess for the month was generally more than half an inch.

On the 18–20th, accompanying the passage of the first of the 2 storms described in the general summary, exceptionally heavy snowfalls occurred over northern Indiana and northern Ohio, especially in the valleys of the Maumee and Cuyahoga rivers, where the depths ranged from 6 to 12 inches. Limbs of trees were broken in these sections by the weight of the snow, and some damage was done to telephone and telegraph wires. The rain and melting snow of the period caused a rapid rise of the rivers on the 20th-22d, but at no time was the flood stage reached.

From the 22d to the 26th, during the passage of the second storm referred to in the summary, severe snowstorms occurred over eastern Wisconsin and northeastern Illinois, where depths of from 6 to 12 inches were recorded, and traffic was interrupted to a considerable extent.

ICE FIELDS AT BUFFALO.

The following paragraph, relative to the extensive ice fields which held at the eastern end of Lake Erie because of the absence of brisk and high southwesterly winds, is from the report of Mr. D. Cuthbertson, District Forecaster, Buffalo, N. Y.:

The ice fields that extended beyond vision, and from shore to shore, on March 31, continued until after April 22, offering more or less obstruction to navigation, which opened on the 10th by the arrival of the steamer *Boyce*. The steamer had battled with the ice fields from the time it was sighted 15 miles out on the afternoon of the 9th until 3:30 p. m. of the 11th, taking about 48 hours to cover the distance. The western limit of the ice became visible on the morning of the 25th. The brisk westerly winds of the 22d–26th drove the large fields down the Niagara River, so that by the 30th the ice had entirely disappeared. The persistent manner in which the fields remained at this end of the lake was due mainly to the absence of brisk and high southwest and west winds, which usually drive the ice down the river.

ERRATUM.

In the report for March, 1910, page 4, 2d paragraph under the topic "Ice in the Great Lakes," the date 1893 should be made to read 1903.

ICE CONDITIONS ON THE GREAT LAKES DURING THE WINTER OF 1909-10.

By N. B. CONGER, Inspector and Marine Agent. Dated Detroit, Mich., May 23, 1910.

There was not as much ice as usual in any of the lakes during the past winter and navigation, in consequence, opened earlier than has been the case in several years. The low temperatures of December, 1909, caused a general formation of ice in all the lakes and over the upper lakes it increased steadily in thickness as the month advanced. The temperatures during January and February, 1910, held the ice firm, but the high temperatures during March, 1910, caused a decided breaking up of the ice fields and there was a general disappearance in all the lakes, except over eastern Erie. In Superior the fields disappeared from the shore early in March and did not return with the shifting winds, as is usual. The field in Whitefish Bay broke up early and moved out during the first week in April, 1910. The ice in St. Marys River was not as heavy as during the last season and it moved out about 15 days earlier.

In Green Bay the thickness of the ice was about normal, but it broke up and moved out about one month earlier than last season. There were fewer ice fields reported in Lake Michigan than usual, but the fringe of ice along the eastern shore continued during the early part of March. During the latter part of the month, however, no ice was reported south of the Islands.

The ice in the Straits of Mackinac was not as heavy as usual and moved out on April 1, 1910, the earliest opening since 1903. There were few ice fields reported in Huron and most of those were over the northern portion and along the eastern shore. These latter fields disappeared during the first week in April, 1910. In Lake St. Clair the ice formed during the latter part of November, 1909, and reached a thickness of from 14 to 18 inches during December. The ice broke up during the middle of March, 1910, and had run out of the lake by March 22. The Detroit River was blockaded with ice from about Third Street at Detroit, south to the mouth from December 20, 1909, until late in February, 1910. A tug operated about 10 miles down the river during this period to keep a passage clear for the car ferries, but much difficulty was experienced with the ice from December 20 to 27, 1909, and on February 18, 1910. The usual conditions prevailed in Lake Erie, the heaviest fields being reported over the eastern portion. The western portion of the lake was practically free of ice by March 20, 1910, and the fields moved gradually to the extreme eastern portion and did not disappear from that section of the lake until April 30, 1910.

Over the western portion of Lake Ontario, the larger fields of ice disappeared during the early part of March, 1910. Over the extreme eastern portion the fields were broken up and disappeared during the first week of April, 1910, large quantities of the ice moving down the river.

While navigation was resumed on the lakes about April 10, 1910, there were but few vessels in commission until April 15, on account of hull insurance.

The opening and closing of navigation on the Great Lakes, 1909–10.

LAKE SUPERIOR.

Stations.	Navigation. Closed.	Navigation. Opened.	Ice first formed.	Greatest thickness.	Ice disappeared.	Remarks.
		1910.		*Inches.*	1910.	
Duluth, Minn	Dec. 22, 1909	Apr 14	Nov. 21, 1909	32	Mar. 29	Ice covered the harbor on December 20. Local navigation closed on January 27, 1910, though a fish tug broke through the ice and entered the harbor on February 17, 1910, and began operations again on March 17, 1910.
Two Harbors, Minn	Jan. 28, 1910	Apr 14	.....	.....	Mar. 20	The fire tug kept the ice in the harbor broken most of the winter.
Bayfield, Wis	Jan. 2, 1910	Mar. 29	Dec. 28, 1909	18	Mar. 20	South channel open to Long Island light on March 12, 1910.
Washburn, Wis	Dec. 5, 1909	Apr. 9	Dec. 3, 1909	15	Apr 10	Ice broke away from the docks on March 19, 1910.
Ashland, Wis	Dec. 6, 1909	Apr. 9	Dec. 9, 1909	25	Mar. 24	
Portage L. S. S., Mich	Dec. 15, 1909	Apr. 9	Dec. 6, 1909	16	Mar 26	The first through passages were made on April 16, 1910.
Eagle Harbor, Mich	Dec. 20, 1909	Apr. 14	Dec. 9, 1909	16	Mar. 24	Field ice drifted in and out of harbor on night of March 26-27, 1910.
Houghton, Mich	Dec. 15, 1909	Apr. 5	Dec. 9, 1909	15	Mar. 28	Channel clear of ice in front of the city on March 23, 1910.
Marquette, Mich	Dec. 11, 1909	Apr. 16	Dec. 26, 1909	18	Mar. 17	Harbor frozen over on January 17, 1910, but was broken up on January 20, 1910. It again froze over on February 13, 1910, and remained solid till March 10, 1910.
Munising, Mich	Dec. 20, 1909	Apr. 25	Dec. 20, 1909	16	Mar. 29	Teams crossed to Grand Island as late as March 19, 1910.
Whitefish Point, Mich	Dec. 17, 1909	Apr. 12	.....	30	Apr. 3	Ice fields first formed off this point on January 9, 1910.
Sault Sainte Marie, Mich	Dec. 16, 1909	Apr. 11	Dec. 20, 1909	15	Apr. 1	The ferry operated below the locks all winter and reported but little difficulty on account of ice. The steamer *Elva* arrived from Detour on April 6. The Canadian locks opened on April 12 and the first passage through was steamer *J. E. Upson* up bound. The American locks opened on May 2, opening being delayed by work in widening the channel.

The opening and closing of navigation—Continued.

LAKE MICHIGAN.

Stations.	Navigation. Closed.	Navigation. Opened.	Ice first formed.	Greatest thickness.	Ice disappeared.	Remarks.
		1910.		*Inches.*	1910.	
Gladstone, Mich.	Dec. 5, 1909	Apr. 7	Dec. 8, 1909	22	Mar. 30	Harbor ice unbroken throughout the winter.
Escanaba, Mich.	Dec. 16, 1909	Apr. 6	Dec. 13, 1909	23	Mar. 31	Harbor ice unbroken throughout the winter after December 30, 1909.
Menominee, Mich.	Dec. 25, 1909	Mar. 31	Dec. 1, 1909	24	Mar. 28	
Green Bay, Wis.	Dec. 7, 1909	Mar. 30	Dec. 7, 1909	15	Mar. 25	The formation of ice on the river was later than for many years.
Plum Island, Wis.	Jan. 8, 1910*	Mar. 26	Jan. 9, 1910	18	Mar. 24	The ice did not remain solid more than a week at a time during the winter.
Sturgeon Bay, Wis.	Dec. 30, 1909†	Mar. 16	Dec. 8, 1909	36	Mar. 27	Navigation through Ship Canal opened March 27, 1910.
Kewaunee, Wis.	.....	.....	.....	3	Mar. 1	Car ferries, Goodrich Line steamers and fish tugs made this port all winter.
Two Rivers, Wis.	.....	.....	Dec. 8, 1909	5	Mar. 20	Steamers have made this port all the past winter.
Manitowoc, Wis.	.....	.....	Dec. 8, 1909	18	Mar. 19	Car ferries make this port all winter. General navigation opened by departure of steamer *Niko* on April 6, 1910.
Sheboygan, Wis.	.....	.....	Dec. 10, 1909	5	Mar. 12	Goodrich Line steamers make this port all winter. General navigation closed December 27, 1909, and opened March 30, 1910.
Milwaukee, Wis.	.....	.....	Dec. 10, 1909	.....	Mar. 12	The harbor was not closed nor the entrance canal blocked by ice during the past winter.
Racine, Wis.	.....	.....	Dec. 12, 1909	24	Mar. 10	This port open for navigation throughout the year.
Kenosha, Wis.	.....	.....	Jan. 5, 1910	12	.....	Harbor practically closed by ice from January 11 to February 15, 1910.
Chicago, Ill.	.....	.....	Dec. 24, 1909	10	Mar. 6	This port open for navigation throughout the year. General navigation opened on March 13, 1910.
Michigan City, Ind.	Dec. 12, 1909	Apr. 1	Dec. 5, 1909	28	Mar. 15	Inner harbor clear of ice about March 1, but the entrance to the harbor was blocked by ice fields for a period after that time.
St. Joseph, Mich.	Dec. 24, 1909	Mar. 14	Nov. 27, 1909	30	Mar. 20	Fish tugs blasted a channel and worked out of the harbor February 28, 1910. Harbor clear of ice March 6, but entrance later blocked by ice fields.
South Haven, Mich.	Nov. 30, 1909	Apr. 1	Dec. 6, 1909	6	Mar. 22	Harbor clear of ice about March 1, but later blocked by ice fields.
Holland L. S. S., Mich.	Jan. 4, 1910	Mar. 16	Dec. 19, 1909	12	Mar. 28	Harbor entrance clear of ice about March 1, but blocked by ice fields for two weeks after that date.
Grand Haven, Mich.	.....	.....	Dec. 7, 1909	.....	.....	Harbor closed by ice only on February 18, 19, and 20, 1910, and steamers made this port regularly, except as noted, throughout the winter.
Muskegon, Mich.	Nov. 30, 1909	Mar. 16	Dec. 18, 1909	22	Mar. 22	Steamer *Indiana* broke through the ice and entered harbor on January 10, 1910, but was somewhat delayed by ice after beginning regular trips.
Pentwater, Mich.	Dec. 24, 1909	Mar. 23	Dec. 20, 1909	20	Mar. 21	Inside harbor frozen, but channel free of ice most all winter.
Ludington, Mich.	.....	.....	Dec. 8, 1909	22	Mar. 24	Harbor kept open by car ferries and other steamers whichmake this port throughout the year. Navigation delayed by ice only for few hours during the last week in February, 1910.
Manistee, Mich.	.....	.....	Dec. 9, 1909	19	Mar. 22	Pere Marquette steamers make this port weekly and were delayed but once during the past winter when on February 24-25 an ice field blocked the harbor entrance about 30 hours. General navigation closed on December 18, 1909, and opened on March 24, 1910.
Frankfort, Mich.	.....	.....	Dec. 8, 1909	24	Mar. 16	Harbor kept open by car ferries. General navigation closed December 29, 1909, and opened April 2, 1910.
South Manitou Island, Mich.	Dec. 13, 1909	Mar. 31	Feb. 17, 1910	3	Mar. 15	The ice in the harbor and in Manitou Island passage was broken up and moved out by soft weather and southwest winds on March 2.
Glen Haven, Mich.	Dec. 2, 1909	Apr. 6	Feb. 18, 1910	5	Mar. 16	The mail boat cleared for South Manitou Island on March 4 and began regular trips on the 16th.
Charlevoix, Mich.	Dec. 5, 1909	Mar. 31	Dec. 8, 1909	16	Mar. 31	The Beaver Island mail boat ran till January 1, 1910, and the tug *McCann* made a trip with mail on January 25, 1910.
Harbor Springs, Mich.	Nov. 20, 1909	Apr. 7	Jan. 9, 1910	14	Apr. 1	A large field of ice lay off this port during mostof March, 1910.
St. James, Beaver Is'ld, Mich.	Jan. 15, 1910	Mar. 28	Jan. 10, 1910	18	Apr. 5	Large fields of ice, drifting with the wind most of the time, surrounded the island during March.
Mackinaw City, Mich.	Dec. 16, 1909	Apr. 4	Dec. 6, 1910	18	Apr. 1	Car ferries operated all winter. Open water from the Point to St. Ignace on February 5, 1910. Last boats through were steamers *City of Genoa* and *City of Naples* on December 16, 1909, and the tug *Arthur* passed down on April 4, 1910. Less ice than during the average season.

*Lights closed. †Navigation through ship canal closed December 24, 1909.

LAKE HURON.

Mackinac Island, Mich.	Dec. 15, 1909	Mar. 25	Dec. 28, 1909	16	Apr. 1	Steamer *Algomah* broke the ice and landed on the Island on February 4, 1910, and continued delivering the mail till the 8th, after which, on account of the ice she did not make the island till March 25, 1910.
Detour, Mich.	Dec. 18, 1909	Apr. 6	Jan. 1, 1910	12	Apr. 1	Tugs *General* and *Thompson* kept the harbor ice broken till February 7; and the steamer *Elva* cleared for Sault Sainte Marie on April 6, 1910.
Cheboygan, Mich.	Dec. 30, 1909	Apr. 1	Dec. 25, 1909	12	Mar. 23	The steamer *Islander* broke 4 inches of ice in the harbor and 10 inches of ice outside on December 30, 1909, to reach the dock.
Presque Isle Lt., Mich.	Dec. 16, 1909	Apr. 4	Nov. 23, 1909	20	Mar. 26	Harbor ice began breaking on March 6 and the harbor was clear of ice on March 15, 1910.
Middle Island, Mich.	*	Apr. 5	Dec. 1, 1909	12	Mar. 29	Unknown steamer passed up on April 5, 1910, the first of the season.
Thunder Bay Island, Mich.	Dec. 16, 1909	Mar. 12	Dec. 7, 1909	8	Mar. 21	The ice fields off this island were on the move all winter. The first steamer passed, up bound, on April 5, 1910.
Alpena, Mich.	Dec. 18, 1909	Mar. 12	Dec. 9, 1909	14	Mar. 6	Harbor ice broken up by south winds and thawing weather early in March, and the ice moved out of Thunder Bay on March 6-7, 1910.
Oscoda, Mich.	Dec. 18, 1909	Mar. 20	.....	5	Mar. 17	
Ottawa Point, Mich.	Dec. 10, 1909	Apr. 3	Nov. 23, 1909	22	Mar. 22	Most of the ice in the harbor was driven out by a northerly gale on January 22, 1910.
Bay City, Mich.	Dec. 5, 1909	Apr. 1	Dec. 7, 1909	18	Mar. 19	
Point aux Barques, Mich.	Dec. 11, 1909	Mar. 13	Dec. 6, 1909	14	Mar. 12	Harbor ice broken up during January by thawing weather and high winds.
Harbor Beach, Mich.	Dec. 24, 1909	Mar. 15	Dec. 15, 1909	10	Mar. 15	
Port Huron, Mich.	Dec. 17, 1909	Mar. 22	Dec. 9, 1909	18†	Mar. 6	Ice in St. Clair River kept broken by ferries. The first through passage was steamer *W. H. Mack*, down bound, on April 13, 1910.

*Unknown steamer passed up on January 12, 1910. †Measurement made in Black River.

DETROIT RIVER.

Detroit, Mich.	Dec. 8, 1909	Mar. 28	Nov. 23, 1909	12	Mar. 22	The last up bound steamer, *City of Genoa*, passed on December 13, 1909, and the last down bound were the steamers *Strathcona* and *Donnacona* on December 18, 1909. They were several days getting out of the river. The steamers *Boyce* and *Eddy* attempted to follow, but gave up the battle on December 23. The steamers *Britannia* and *Pleasure* forced a passage to Lake Erie on January 19, 1910, en route for Toledo, Ohio. The first through passages were the steamers *Wm. A. Payne*, up bound, and *M. T. Greene*, down bound, on April 11, 1910. Navigation was considered closed on the arrival of the last D. & C. Line steamer, *City of St. Ignace*, on December 8, 1909; and open on the departure of the steamer *City of Detroit*, of the same line, for Cleveland, on March 28, 1910.

The opening and closing of navigation—Continued.

LAKE ERIE.

Stations.	Navigation. Closed.	Navigation. Opened.	Ice first formed.	Greatest thickness.	Ice disappeared.	Remarks.
		1910.		*Inches.*	1910.	
Toledo, Ohio	Dec. 13, 1909	Mar. 18	Dec. 9, 1909	15	Mar. 6	High wind and high water broke up the ice in the harbor on December 15, but it formed again the following day; and on account of danger from a possible ice blockade, the steamers *Britannia* and *Pleasure* were employed in breaking up the ice in the Maumee River and harbor January 21–26, 1910. Considerable ice formed after this time, but it broke up and moved out on one day (March 6, 1910).
Put-in-Bay, Ohio	Dec. 29, 1909	Mar. 19	Dec. 1, 1909	20	Mar. 28	Teams were still crossing to Port Clinton on February 28. The south passage was reported open on March 5, 1910.
Kelleys Island, Ohio	Dec. 28, 1909	Mar. 19	Dec. 6, 1909	12	Mar. 28	
Marblehead, Ohio	Dec. 17, 1909	Mar. 28	Dec. 18, 1909	18	Mar. 26	
Sandusky, Ohio	Dec. 21, 1909	Mar. 18	Dec. 8, 1909	20	Mar. 17	After freezing over, the ice in the bay remained intact throughout the winter, except that the channel was kept open by steamer *Lakeside* until December 29, 1909.
Huron, Ohio	Dec. 19, 1909	Mar. 22	Dec. 8, 1909	17	Mar. 20	The harbor ice broke up on March 7 and moved out on March 14, 1910.
Vermilion, Ohio	Dec. 2, 1909	Mar. 5	Nov. 30, 1909	10	Mar. 16	The barbor ice was broken up in December and again on January 16, after which it was undisturbed until March 1, reaching a thickness of 18 inches.
Lorain, Ohio	Dec. 31, 1909	Mar. 5	Dec. 7, 1909	18	Mar. 11	Tugs kept the harbor ice broken up all winter.
Cleveland, Ohio	Dec. 15, 1909	Mar. 27	Dec. 17, 1909	18	Mar. 19	Lake ice moved 4 to 6 miles off shore on night of February 26–27, 1910. Harbor ice began breaking up on March 7 and harbor was nearly clear of ice by the 14th.
Fairport, Ohio	Dec. 18, 1909	Mar. 31	Nov. 18, 1909	16	Mar. 29	Harbor ice undisturbed until the first week in March.
Ashtabula Harbor, Ohio	Dec. 24, 1909	Mar. 21	Dec. 16, 1909	16	Mar. 21	Ice fields observed 3 or 4 miles off shore during last week in March.
Conneaut Harbor, Ohio	Jan. 4, 1910	Mar. 12	Dec. 7, 1909	13	Mar. 31	Harbor ice broken by car ferries until January 4, 1910, after which it remained intact till the first week in March.
Erie, Pa	Dec. 18, 1909	Mar. 25	Dec. 18, 1909	16	Apr. 4	Fish tugs broke through the ice and got out on March 25, but the first vessel to make this port was steamer *Julia H. Merrill* on April 9, 1910.
Dunkirk, N. Y	Dec. 22, 1909	Apr. 27	Dec. 26, 1909	10	Apr. 11	The harbor was clear of ice on March 20, but at that time the lake was covered by ice as far as the eye could reach.
Buffalo, N. Y	Dec. 24 1909	Apr. 10	Dec. 17, 1909	18	Apr. 30	Harbor ice kept broken up by tugs. Ice fields in the lake extended beyond vision during March and the greater portion of April. The steamer *Mary A. Boyce* forced a passage through the ice on April 10 and the steamer *Troy* cleared on the same date; general navigation, however, did not open until about 10 days later.

LAKE ONTARIO.

Fort Niagara, N. Y	Dec. 8, 1909	May 12*	Dec. 9, 1909	12	Apr. 26	Harbor ice kept broken by swift current of Niagara River. There is never much ice formed here. The ice that hinders navigation at this point comes down the Niagara River from Lake Erie.
Charlotte, N. Y.†						No ice in harbor on March 5 and car ferry captains report no ice observed in the lake between Coburg, Ont., and this port on same date.
Sodus Point, N. Y	Dec. 15, 1909	Mar. 31	Dec. 16, 1909	18	Mar. 25	No ice fields observed in the lake during March, 1910.
North Fair Haven, N. Y	Dec. 1, 1909	Apr. 6	Dec. 18, 1909	18	Mar. 28	Very few fields of ice observed off this port during the winter.
Oswego, N. Y	Dec. 16, 1909	Mar. 24	Dec. 10, 1909	18	Mar. 17	Channel open up to the bridge on March 5 and the steamer *Hinckley* began setting buoys on the 24th.
Sacketts Harbor, N. Y	Dec. 14, 1909	Apr. 7	Dec. 13, 1909	15	Mar. 29	This port open for navigation on March 29 and all ice disappeared on that date but there were no boat arrivals or departures till April 7, 1910.
Cape Vincent, N. Y	Dec. 30, 1909	Mar. 26		12	Apr. 6	Navigation opened by arrival of steamer *Pierrepont* from Kingston, Ont.
Ogdensburg, N. Y	Dec. 17, 1909	Apr. 7	Dec. 1, 1909	15	Apr. 1	Channel practically free of ice on March 19, 1910.

*This port was open for navigation on March 1, so far as ice conditions were concerned. †General navigation closed on December 11, 1909, and opened on March 18, 1910; car ferries operated throughout the winter.

TABLE 1.—*Climatological data for April, 1910. District No. 4, Lake Region.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Minnesota.																				
Cloquet	Carlton	892																		C. I. McNair.
Duluth	St. Louis	1,133	39	41.2	+ 2.8	73	13	16	23	40	1.40	− 0.70	0.64	4.7	6	9	12	9	ne.	U. S. Weather Bureau.
Floodwood	do	1,257	6	47.2[a]		77[a]	3	16[a]	6†	53[a]	1.21[a]		0.28[a]		5[a]	20[a]	4[a]	5[a]	n.[a]	M. H. Schussler.
Mount Iron	do	1,510	16	46.0	+ 6.9	77	13	12	23	43	2.67	+ 0.81	1.50	3.5	8	11	12	7	nw.	Oliver Iron Mining Co.
Stephens Mine	do	1,500	3	45.0		76	13	13	23	43	1.38		0.67		7	15	5	10	se.	Do.
Two Harbors	Lake	614	16	41.8	+ 2.9	67	8	18	23	29	1.50	− 0.76	0.90	T.	2	17	11	2	ne.	George W. Watts.
Wisconsin.																				
Appleton	Outagamie	795	11	47.8	+ 4.7	77	15	22	18	34	3.40	+ 1.15	0.74	11.2	13	14	8	8	se.	Wm. O. Thiede.
Ashland	Ashland	647	16	45.5	+ 5.9	77	4	21	23†	44	1.78	− 0.37	0.57	4.0	7	13	13	4	ne.	Sam Wheeler.
Cecil	Shawano	804	3	46.2		75	15	22	23†	38	4.47		0.80	10.0	13	11	10	9	se.	Louis W. Schmidt.
Chilton	Calumet	860	16	47.1	+ 2.1	75	15†	22	23	35	4.83	+ 2.53	1.18	12.0	12	9	16	5	ne.	Daniel V. Jones.
Crandon	Forest	1,060	15	45.0	+ 1.9	67	8†	18	12	38	2.96	+ 1.48	0.90	13.0	8	21	1	8	s.	Calvin T. H. Riggs.
Florence	Florence	1,293	19	44.0	+ 5.0	71	15†	20	23†	39	4.04	+ 1.60	2.33	12.0	8	11	8	11	e.	Fred S. Evans.
Fond du Lac	Fond du Lac	800	24	48.4	+ 3.6	79	29	22	23†	42	4.62	+ 2.62	1.27	13.5	12	13	3	14	ne.	Geo. W. Marshall.
Grand River Locks	Marquette	616	14	49.6		85	29	22	23	40	4.22	+ 1.79	1.58	8.5	10	17	2	11	s.	Jerry Parkinson.
Green Bay	Brown	617	24	46.2	+ 5.5	75	15	25	23	32	4.90	+ 2.46	1.60	12.7	14	4	9	17	se.	U. S. Weather Bureau.
Herbster	Bayfield	700	2																	Wm. Angell.
Iron River	do	1,096	1	47.4		76	4	17	23	45	1.33		0.28	4.0	7	12	9	9	ne.	Harry C. Hall.
Kewaunee	Kewaunee	590	1	42.2		62	20	26	26	27	4.59		1.50	11.0	7	8	7	15	s.	Eugene V. Kimball.
Manitowoc	Manitowoc	616	59	44.0	+ 2.3	75	29	26	23	33	4.73	+ 2.27	1.39	12.0	13	11	2	17	se.	Johanna Lups.
Menasha	Winnebago	764	13								3.18	+ 1.40	0.90	7.0	14	17	3	10	se.	George T. Allanson.
Menominee Falls	Waukesha	842	1	47.8		79	29	21	24	40	4.47		0.87	10.5	16	14	7	9	n.	Arthur H. Christman.
Milwaukee	Milwaukee	681	40	46.9	+ 5.1	84	29	22	23	35	3.48	+ 0.78	1.65	8.0	12	13	7	10	ne.	U. S. Weather Bureau.
New London	Outagamie	762	14	47.9	+ 3.3	74	4	22	23	37	5.89	+ 3.30	1.35	12.0	12	6	10	14	se.	August H. Pape.
Oconto	Oconto	590	19	45.5	+ 2.0	73	15	23	12	37	3.79	+ 1.15	0.62	9.5	12	10	10	10	ne.	William K. Smith.
Oshkosh	Winnebago	744	21	48.1	+ 2.9	77	15†	24	23	37	4.04	+ 1.68	1.00	11.0	11	15	7	8	se.	Evan Vincent.
Pine River	Waushara	900	15	48.6[d]	+ 3.7	82[d]	29	22[d]	23	42[d]	3.90	+ 1.69	1.01	8.9	13	0[d]	16[d]	10[d]	se.	George H. Carpenter.
Plum Island	Door	588	2	41.1		58	9	29	21	26	4.85		1.33	4.0	13	6	9	15	s.	John P. Whelan.
Port Washington	Ozaukee	713	17	44.8	+ 1.5	78	30	23	23	36	3.22	+ 0.62	0.65	12.0	11	12	2	16	se.	Richard C. Kann.
Racine	Racine	633	13	46.6	+ 1.7	84	29	22	24	42	2.66	+ 0.79	0.62	6.0	14	14	6	10	se.	Daniel Davis.
Sheboygan	Sheboygan	831	12	44.4	+ 1.4	73	30	24	23	32	3.76	+ 1.53	0.67	9.0	13	12	5	13	se.	Louis C. Meyer.
Sturgeon Bay	Door	600	12	42.2	+ 2.5	62	20	22	13	32	5.09		0.81	6.0	16	7	12	11	ne.	Adam N. Dier.
Superior	Douglas	671	1	40.1		65	8	17	23	32	1.23		0.56	3.0	5	12	13	5	ne.	Edward B. Banks.
Waupaca	Waupaca	857	14	48.0	+ 3.6	77	15	21	23†	44	4.73	+ 2.41	2.17	12.0	11	7	8	15	se.	James H. Flagg.
Illinois.																				
Chicago	Cook	824	40	51.2	+ 5.3	86	29	26	23	37	3.84	+ 0.96	0.9	6.9	14	11	6	13	sw.	U. S. Weather Bureau.
Indiana.																				
Auburn	DeKalb	874	14	48.6	+ 2.1	82	29	24	13	49	3.03	+ 0.50	1.15	.....	14	12	1	17	w.	Mrs. Josie B. Kuhlman.
Berne	Adams	849	....	51.8		84	29	25	13	47	2.95		0.87	2.4	14	13	7	10	sw.	H. M. Reusser.
Elkhart‖	Elkhart	801	8	52.4		86	29	29	24†	39	3.40		0.89	2.0	15	15	7	8	s.	Dr. Miles Medical Co.
Fort Wayne	Allen	775	14	52.8	+ 3.5	84	29	26	13	51	3.11	+ 0.17	0.93	1.8	14	11	5	14	sw.	Orion E. Mohler.
Hammond	Lake	598	19	51.4	+ 3.9	86	29	24	24	42	3.02	+ 0.19	1.10	2.0	11	5	10	15	.....	Carson W. Whitney.
Howe	Lagrange	886	5	49.2		86	29	28	7	41	3.61		0.75	6.0	9	14	4	12	w.	James E. Zook.
South Bend	St. Joseph	726	17	49.0	+ 1.0	83	29	26	24	45	2.97	+ 0.29	1.15	10.5	14	14	3	13	se.	Henry H. Swaim.
Whiting	Lake	606	....	53.7		85	11	27	24	40	3.10		1.14	T.	9	12	9	9	sw.	D. H. Boyd.
Michigan—Upper Peninsula.																				
Baraga	Baraga	623	8	43.5[a]		75[a]	6	17[a]	13	54[a]						15	0	15	n.	D., S. S. & A. Ry.
Bergland	Ontonagon	1,300	....	45.6		77	4	15	12	47	1.04		0.30	.....	6	15	3	12	ne.	Frank McMonigal.
Blaney	Schoolcraft		3	35.8		65	4	13	24	35						9	14	7	nw.	Dr. S. S. Hackwell.
Calumet	Houghton	1,246	22	41.4	+ 4.1	72	4	16	23	32	2.36	+ 0.25	0.69	9.0	9	19	4	7	e.	E. S. Grierson.
Chatham	Alger	875	9	40.8		73	14	18	12	44	2.61		0.68	10.0	12	12	9	9	nw.	U. P. Experiment Station
Deer Park	Luce	610	9	41.8		69	15	27	1	34	2.70		0.60	.....	7	12	1	17	se.	Mrs. Sara E. McGaw.
Detour	Chippewa	585	9	44.1		85	14	12	9	50	2.46		0.66	1.0	9	13	11	6	se.	Dr. F. E. Cameron.
Eagle Harbor	Keweenaw	622	11	41.0	+ 3.6	73	4	23	12	30	2.78	+ 0.67	1.00	10.0	5	8	14	8	ne.	John Nolen.
Escanaba	Delta	612	37	41.2	+ 4.0	59	9	27	7	25	4.87	+ 2.80	1.50	16.3	13	7	8	15	n.	U. S. Weather Bureau.
Ewen	Ontonagon	1,147	9	43.2		76	4	14	12	45	1.46		0.80	8.5	7	16	5	9	se.	W. B. Hatfield.
Grand Marais	Alger	610	9	38.8		56	3	25	24	19	1.22		0.30	2.0	7	9	4	17	s.	Mrs. Lena Truedell.
Houghton	Houghton	668	9	42.8	+ 6.0	74	4	24	23	35	2.04	+ 0.01	0.83	8.6	7	10	11	9	e.	U. S. Weather Bureau.
Humboldt	Marquette	1,536	13	45.2	+ 9.7	74	15	15	12	45	1.70	− 0.05	1.00	7.0	3	16	3	11	e.	D., S. S. & A. Ry.
Iron Mountain	Dickinson	1,111	9	44.2[f]		74[f]	16	24[f]	23	40[f]	4.75		1.05	.....	10	13[d]	5[d]	8[d]	ne.	Chapin Mining Co.
Iron River	Iron	1,504	13	45.4		76	15	12	24	44	2.80		0.90	3.0	6	23	2	5	nw.	Victor D. Laing.
Ironwood	Gogebic	1,520	7	45.9		74	4†	17	23	38	2.13		1.15	8.0	7	18	6	6	n.	Prof. J. V. Brennan.
Ishpeming	Marquette	1,536	10	43.1[d]	+ 4.3	73[d]	14	20[d]	12	40[d]	2.90	+ 0.95	0.40	10.2	12	8	15	7	n.	Cliv'd. Cliffs Iron Co.
Isle Royale	Keweenaw	610	3																	John H. Malone.
Mackinac Island	Mackinac	831	10																	M. I. S. P. Com.
Maple Ridge	Delta		4	41.4		71	14	22	23	38	3.05		0.98	7.0	8	13	6	11	n.	Herman Johnson.
Marquette	Marquette	734	39	40.8	+ 3.3	75	14	26	11†	32	3.89	+ 1.95	1.66	19.0	12	5	13	12	nw.	U. S. Weather Bureau.
Menominee	Menominee	581	11	42.6	+ 2.9	63	15	28	12†	27	3.03	+ 1.28	0.86	1.8	10	15	1	14	ne.	C. & N. W. Ry.
Newberry	Luce	773	8	43.8		72	13	22	11	43				3.0		14	6	10	nw.	D., S. S. & A. Ry.
Powers	Menominee	868	11																	C. & N. W. Ry.
St. Ignace	Mackinac	593	20	42.6	+ 4.2	67	15	28	2†	29	2.47	+ 0.44	0.70	1.0	13	6	10	14	ne.	D., S. S. & A. Ry.
Sault Ste. Marie	Chippewa	614	22	42.0	+ 6.3	72	14	26	2	37	2.53	+ 0.46	0.77	1.3	12	6	8	16	se.	U. S. Weather Bureau.
Thomaston	Gogebic	1,347	13	44.5	+ 6.6	75	4	13	12	53	1.31	− 0.35	0.40	4.5	5	12	7	11	n.	D., S. S. & A. Ry.
Victoria	Ontonagon	1,263	....	45.2		77	4	20	24	42	1.45		0.55	5.0	6	18	4	8	nw.	R. S. Schults, jr.
Watersmeet	Gogebic		1	44.7		74	13†	14	12	46	2.33		0.94	3.6	9	9	8	13	n.	B. N. Grant.
Wetmore	Alger	878	13	41.3	+ 5.1	74	14	12	12	44	2.35	+ 0.67	0.85	6.0	6	13	0	17	n.	D., S. S. & A. Ry.
Whitefish Point	Chippewa	610	20	37.6	+ 2.7	55	14	26	7	26	1.65	− 0.10	0.50	2.4	11	15	0	15	se.	Robert Carlson.
Michigan—Lower Peninsula.																				
Adrian	Lenawee	770	32	51.0	+ 4.5	84	29	25	13	44	3.64	+ 1.04	0.37	0.0	15	7	5	18	s.	B. F. Gibbs.
Agricultural College	Ingham	820	46	49.2	+ 3.6	77	29	28	12	41	2.48	+ 0.20	0.73	0.0	13	8	8	14	s.	Prof. A. J. Patten.
Allegan	Allegan	698	19	52.5	+ 5.9	81	15†	28	7	43	3.92	+ 1.76	0.89	2.0	12	8	8	14	w.	Pere Marquette R. R.
Alma	Gratiot	750	23	49.2	+ 4.9	75	5	25	13	40	3.07	+ 0.69	0.81	T.	11	7	9	15	e.	P. M. Smith.
Alpena	Alpena	609	37	42.7	+ 4.7	72	14	28	13	31	2.82	+ 0.62	0.75	0.1	15	7	11	12	se.	U. S. Weather Bureau.
Ann Arbor	Washtenaw	930	30	49.0	+ 3.6	79	29	27	13	42	3.41	+ 1.14	0.74	0.1	19	8	6	16	se.	University of Michigan
Arbela	Tuscola	728	14	47.8	+ 3.2	73	14†	25	13	37	5.48	+ 2.66	1.28	T.	14	2	7	21	nw.	Wm. Atkin.
Battle Creek	Calhoun	822	26	49.8	+ 2.3	83	29	27	13	40	3.61	+ 1.57	0.67	T.	12	10	5	15	sw.	Elmer E. Sager.
Bay City	Bay	593	14	48.6	+ 5.0	75	5	27	7	36	6.35	+ 4.07	1.50	0.0	12	9	15	6	se.	Pere Marquette R. R.
Benzonia	Benzie	832	14	47.6	+ 5.6	76	15	27	7†	36	3.10	+ 0.49	1.02	0.0	10	11	10	9	nw.	Martin S. Joiner.
Berlin	St. Clair		21	46.4	+ 2.7	78	5	21	13	42	5.20	+ 3.10	1.65	1.0	11	7	9	14	se.	R. O. Gould.
Big Rapids	Mecosta	906	14	48.5	+ 4.9	77	15	22	13	44	2.72	+ 0.23	0.65	0.9	13	11	9	10	se.	Charles Gay.
Bloomingdale	Van Buren		6	49.5		82	29	27	7†	36	3.29		0.67	2.0	8	14	5	11	se.	John M. Haven.
Cadillac	Wexford	1,293	1	46.6[a]		75[b]	14†	25[a]	7†	39[b]	3.19[a]		0.90[a]	0.0	13[a]	7[a]	2[a]	20[a]	sw.[a]	A. J. Teed.
Cassopolis	Cass	903	9																	Michigan Central R. R.
Charlevoix	Charlevoix	610	23	46.4[b]	+ 5.7	69[b]	15	28[a]	7†	30[b]	1.77	+ 0.27	0.60	2.0	6	10	11	9	sw.	Pere Marquette R. R.
Charlotte	Eaton		6	49.5[a]		81[a]	29	25[a]	13	42[a]	3.51		0.70	T.	13	8	7	15	se.	City of Charlotte.

TABLE 1.—*Climatological data for April, 1910. District No. 4*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Michigan—Lower Peninsula—Cont'd.																				
Cheboygan	Cheboygan	611	20	43.0	.....	74	5	25	13	34	3.24	+ 1.12	0.86	1.0	10	4	21	5	e.	E. A. Bouchard.
Clinton	Lenawee	830	20	51.2	+ 4.6	84	16	21	12	49	3.33	+ 0.03	1.03	2.5	12	10	10	10	sw.	David Woodward.
Coldwater	Branch	984	13	51.4	+ 4.9	82	29†	26	13	39	3.03	+ 0.70	0.65	4.0	11	13	6	11	se.	Lake Shore & Mich. So. Ry
Concord	Jackson	.....	5	50.0	.....	82	29	26	13	40	3.73	.....	1.10	0.0	9	13	9	8	sw.	Dr. W. N. Armstrong.
Croton	Newago	685	2	50.2	.....	74	14†	26	13†	40	2.32	.....	0.65	T.	10	5	21	4	sw.	G. R.-Mus. Power Co.
Detroit	Wayne	730	39	49.0	+ 3.5	75	5	31	8	40	4.73	+ 2.40	1.32	T.	16	9	8	13	e.	U. S. Weather Bureau.
Durand	Shiawassee	799	3	50.2	.....	79	5	26	13	39	3.30	.....	0.55	T.	13	10	9	11	nw.	Grand Trunk Ry.
East Tawas	Iosco	590	13	44.6	+ 3.3	68	1	24	8	34	2.37	+ 0.01	0.45	T.	10	17	5	8	e.	Detroit & Mackinac Ry.
Eloise	Wayne	640	13	49.9	+ 4.0	80	29	27	8	41	3.79	+ 2.02	0.87	T.	13	10	10	10	se.	John Gilmore.
Flint	Genesee	730	21	47.8[a]	+ 3.4	77[a]	5	26	13	43[a]	4.51	+ 2.39	0.80	0.0	18	7	13	10	w.	Wm. L. Fisher.
Frankfort	Benzie	589	6	46.2	.....	68	2	28	13	26	2.22	.....	0.96	2.0	8	12	0	18	s.	Capt. Geo. Morency.
Ganges	Allegan	665	1	48.3	.....	75	14	29	23†	37	2.57	.....	0.59	3.0	9	15	3	12	nw.	H. H. Hutchins.
Gaylord	Otsego	1,367	5	45.6	.....	80	14	24	7	42	0.25	.....	0.11	T.	4	10	0	20	sw.	Michigan Central R. R.
Gladwin	Gladwin	794	14	48.7	+ 4.3	77	5	23	13	44	0.75	− 1.26	0.45	T.	3	16	7	7	se.	Geo. R. Smith.
Grand Haven	Ottawa	628	29	47.6	+ 3.6	75	14	28	22	35	2.88	+ 0.44	0.99	0.2	14	10	7	13	se.	U. S. Weather Bureau.
Grand Rapids	Kent	707	21	50.2	+ 4.0	80	29	29	23	36	3.16	+ 0.71	1.26	T.	12	8	5	17	se.	Do
Grape	Monroe	625	20	49.8	+ 3.0	81	29	26	13	42	5.03	+ 2.77	1.63	T.	15	7	11	12	e.	Joseph W. Morris.
Grass Lake	Jackson	989	4	49.0	.....	80	29	25	2	42	3.95	.....	0.70	4.0	14	14	7	9	sw.	Menzo Conklin.
Grayling	Crawford	1,147	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Oscar Palmer.
Harbor Beach	Huron	635	22	45.0	+ 4.0	75	4†	22	19	38	3.70	+ 1.93	1.20	0.0	8	10	7	13	s.	Pere Marquette R. R.
Harrison	Clare	1,159	17	49.7	+ 7.2	76	14	25	8†	44	2.12	+ 0.05	1.09	T.	3	10	5	15	se.	Do.
Harrisville	Alcona	616	26	42.3	+ 3.2	75	14	25	8	40	3.53	+ 0.96	0.88	1.0	11	5	8	17	se.	Dr. D. W. Mitchell.
Hart	Oceana	698	18	45.0	− 0.4	72	15	29	7	38	1.64	− 0.59	0.35	T.	10	4	16	10	s.	Pere Marquette R. R.
Hayes	Huron	620	20	47.6	+ 4.2	77	5	27	8	41	3.34	+ 1.47	0.85	0.0	7	8	5	17	ne.	C. F. Leipprandt.
Highland	Oakland	830	18	.....	.....	77	.....	24	.....	.....	4.44	+ 1.91	1.05	.....	11	.....	.....	.....	.....	A. D. De Garmo.
Hillsdale	Hillsdale	1,150	13	49.7	+ 4.3	80	29	27	8	38	2.54	+ 0.14	0.58	1.5	14	13	3	14	sw.	Prof. C. L. Herron.
Holland	Ottawa	610	4	49.3	.....	78	29	24	13	42	3.19	.....	0.99	T.	13	8	13	9	sw.	City of Holland.
Howell	Livingston	924	18	47.2	+ 2.2	77[e]	29	26[d]	13	41[d]	5.03[e]	+ 2.67	1.40	T.[e]	12[e]	6[e]	6[e]	15[e]	sw.	Frank Sharp.
Ivan	Kalkaska	.....	21	47.0	+ 5.5	74	14	20	13	44	2.10	− 0.08	0.60	2.0	12	8	12	10	nw.	O. L. Giddings.
Jackson	Jackson	927	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Michigan Central R. R.
Jeddo	St. Clair	667	21	47.0	+ 4.0	76	5	24	13	40	4.04	+ 0.70	1.17	0.0	11	8	6	15	sw.	William Bice.
Kalamazoo	Kalamazoo	955	34	50.2	+ 3.4	83	29	28	7†	37	3.30	+ 0.77	0.74	.....	12	11	6	13	se.	Kalamazoo Asylum.
Lansing	Ingham	881	23	50.0	+ 4.2	78	29	29	12†	37	3.18	− 0.38	0.73	T.	18	8	6	16	se.	State Board of Health.
Lapeer	Lapeer	827	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Michigan Home.
Ludington	Mason	586	12	47.5[d]	+ 6.3	72[d]	14	28[d]	18	36[d]	3.85[d]	− 1.88	1.40[d]	T.[d]	7[d]	11[d]	8[d]	7[d]	n.[d]	Pere Marquette R. R.
Luther	Lake	1,028	....	48.7	.....	77	15	21	10†	44	2.17	.....	0.62	T.	11	9	10	11	s.	John W. Nichoson.
Mackinaw	Cheboygan	592	14	43.2	+ 3.2	73	5	21	2	38	1.51	− 0.60	0.50	1.0	5	17	1	12	w.	Grand Rapids & Ind. R.
Mancelona	Antrim	1,121	14	46.1	+ 4.8	76	14	21	12†	42	0.39	− 0.47	0.11	T.	5	17	5	8	se.	Do.
Manistee	Manistee	600	13	50.6	.....	77	15	25	1	40	4.03	+ 1.86	1.70	0.0	12	14	9	7	sw.	Pere Marquette R. R.
Midland	Midland	604	11	.....	.....	75[d]	4	.....	.....	.....	1.02[d]	− 0.81	0.35[d]	T.[d]	6[d]	6[d]	5[d]	15[d]	sw.[d]	Do.
Montague	Muskegon	660	7	48.2	.....	71	5†	26	12	36	2.34	.....	0.68	1.0	6	4	11	15	n.	Gerard A. Whitbeck.
Morenci	Lenawee	811	3	50.2	.....	81	29	26	1†	43	4.50	.....	1.15	0.0	13	11	5	14	sw.	George J. Tripp.
Mount Clemens	Macomb	615	10	.....	.....	.....	.....	.....	.....	.....	3.08[h]	+ 1.87	0.70[h]	0.0[h]	9[h]	5[h]	2[h]	15[h]	se.[h]	Herman Orbits.
Mount Pleasant	Isabella	826	11	47.2	+ 1.8	81	2	15	19	51	3.33	+ 1.35	1.12	.....	7	16	3	11	se.	Pere Marquette R. R.
Muskegon	Muskegon	587	14	48.7	+ 4.7	71	10†	29	13	35	0.71	− 1.03	0.45	T.	4	7	9	14	s.	Grand Rapids & Ind. Ry.
Old Mission	Grand Traverse	848	16	46.8	+ 4.1	76	4	26	7	39	3.97	+ 1.95	0.92	4.0	7	1	21	8	ne.	E. O. Ladd.
Olivet	Eaton	934	20	48.2	+ 2.8	80	29	19	24	38	3.37	+ 0.72	0.98	0.8	14	12	2	16	s.	Prof. G. A. Knapp.
Omer	Arenac	616	11	47.4	+ 5.6	74	5	22	13	43	1.40	− 0.07	0.50	0.0	5	4	11	15	sw.	Detroit & Mackinac Ry.
Onaway	Presque Isle	826	7	.....	.....	72[i]	14	23[i]	13	38[i]	.....	.....	.....	.....	.....	2[i]	4[i]	14[i]	se.[i]	Do.
Ovid	Clinton	760	20	48.8	+ 3.7	78[a]	14	24	13	43[a]	3.05	+ 0.90	0.92	T.	17	14	1	15	sw.	Geo. B. Faxon.
Owosso	Shiawassee	731	13	51.2	+ 6.0	81	5	28	8	42	0.93	− 1.54	0.30	0.0	14	5	18	7	ne.	Owosso Sugar Co.
Petoskey	Emmet	660	20	46.2	+ 5.7	73	4	28	2†	37	1.96	+ 0.13	1.18	1.0	8	11	5	14	w.	Grand Rapids & Ind. Ry.
Plymouth	Wayne	725	13	49.8	+ 4.6	80	29	22	8†	56	3.01	+ 0.10	0.93	0.0	6	9	7	14	sw.	Pere Marquette R. R.
Pontiac	Oakland	935	10	48.4	+ 1.3	76	5	27	8	36	4.10	+ 1.84	1.03	T.	13	16	6	8	se.	Fred W. Shaw.
Port Austin	Huron	618	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Pere Marquette R. R.
Port Huron	St. Clair	639	35	46.4	+ 4.2	78	5	27	8	32	3.50	+ 1.43	1.10	T.	16	7	3	20	n.	U. S. Weather Bureau.
Reed City	Osceola	1,033	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	5	4	nw.	Pere Marquette R. R.
Roscommon	Roscommon	1,141	6	45.0[c]	.....	71[c]	14	20[c]	12	40[c]	2.10[c]	.....	1.00[c]	0.0[c]	7[c]	9[c]	10[c]	8[c]	se.[c]	William Marsh.
Saginaw	Saginaw	601	8	51.6[a]	.....	78[a]	29	30[a]	7†	36[a]	3.42[a]	.....	1.00[a]	T.[a]	12[a]	7[a]	17[a]	5[a]	ne.[a]	Postmaster.
Saginaw, W. S.	do	601	15	49.6	+ 4.4	76	5	27	7	37	44.7	+ 2.28	1.00	T.	16	8	13	9	sw.	Robert B. Hudson.
St. James	Charlevoix	681	4	41.6	.....	68	4	20	7	34	2.34	.....	0.70	0.0	7	10	9	11	sw.	Rev. N. Wilhelm.
St. Johns	Clinton	779	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	City of St. Johns.
St. Joseph	Berrien	593	23	49.0	+ 2.6	80	14	27	24	37	1.30	− 1.22	0.60	1.0	9	11	8	11	sw.	City of St. Joseph.
Sandusky	Sanilac	790	1	47.4	.....	74	14	23	13	39	4.65	.....	1.40	0.0	11	9	13	8	ne.	Pere Marquette R. R.
Saranac	Ionia	639	15	50.2	+ 5.6	79	15	23	13	46	3.42	+ 0.78	0.84	0.0	11	9	3	18	sw.	John Wallington.
South Haven	Van Buren	585	14	47.6	+ 3.2	75	15	28	23†	36	1.45	− 0.79	0.40	0.5	5	18	2	10	se.	Mrs. M. E. De Diemar.
Stanton	Montcalm	880	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	City of Stanton.
Thornville	Lapeer	975	33	48.6	+ 2.5	77	5	30	12	41	6.27	+ 4.13	1.10	T.	13	7	8	15	se.	Dr. J. S. Caulkins.
Traverse City	Grand Traverse	588	13	46.4	+ 5.5	74	4	30	1	34	2.50	+ 0.62	1.00	T.	3	16	0	14	sw.	Grand Rapids & Ind. Ry.
Vassar	Tuscola	641	9	51.2	.....	78	5	25	13	41	.....	.....	.....	.....	.....	4	15	11	se.	Pere Marquette R. R.
Wasepi	St. Joseph	842	13	49.4	+ 3.7	83	29	27	13	40	4.03	+ 1.67	0.75	1.0	15	11	0	19	nw.	Chas. A. Palmer.
Webberville	Ingham	884	8	49.3	.....	79	29	24	13	50	3.50	.....	0.80	T.	13	5	14	11	se.	I. R. Wadsworth.
West Branch	Ogemaw	973	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16	9	5	w.	Michigan Central R. R.
Woodlawn	Montmorency	.....	8	44.0	.....	76	5	19	13	43	2.05	.....	0.78	T.	6	9	4	17	se.	T. C. Mathews.
Ypsilanti	Washtenaw	736	25	48.8	+ 2.6	79	11†	26	8	43	3.98	+ 1.70	0.76	0.0	17	5	20	5	sw.	Orin J. Bemiss.
Ohio.																				
Akron	Summit	1,081	23	50.6	+ 2.8	81	5	27	8	42	2.98	+ 0.26	0.84	6.5	17	12	1	17	sw.	Prof. C. R. Olin.
Benton Ridge	Hancock	800	17	52.5	+ 3.2	82	29	27	13	41	5.23	+ 2.39	1.75	12.0	8	10	6	14	sw.	J. W. Powell.
Bowling Green	Wood	670	30	51.0	+ 3.0	81	29	27	13	40	5.86	+ 2.87	2.00	10.0	11	10	10	10	sw.	G. C. Houskeeper.
Bucyrus	Crawford	1,000	15	49.3	+ 0.7	82	29	25	8	49	4.62	+ 1.72	0.80	4.0	11	10	3	17	s.	James R. Hopley.
Cleveland (1)	Cuyahoga	762	39	48.2	+ 2.2	79	5	32	8	34	3.34	+ 1.03	1.33	2.0	13	9	5	16	se.	U. S. Weather Bureau.
Cleveland (2)‖	do	754	13	48.5	+ 2.6	80	5	30	8	36	3.67	+ 1.71	1.37	T.	12	9	4	17	nw.	Rev. F. L. Odenbach, S. J.
Defiance	Defiance	712	16	49.2	+ 1.1	81	29	25	8	50	3.04	+ 0.33	1.08	T.	10	12	2	16	sw.	John F. Heilshorn.
Findlay	Hancock	776	21	50.4	+ 1.2	84	29	23	13	50	5.29	+ 2.42	2.00	6.0	12	13	9	8	sw.	Dr. E. A. Moser.
Fremont‖	Sandusky	628	9	52.3	.....	88	15	28	13	41	7.52	.....	2.40	8.0	11	10	7	13	sw.	E. Stanley Thomas.
Hedges	Paulding	725	16	52.2	+ 3.3	83	29	21	13	51	3.67	+ 1.03	1.27	4.0	10	17	2	11	s.	Charles Stutzman.
Hillhouse	Lake	997	18	48.2	+ 3.4	80	5	24	8†	40	3.19	+ 0.51	1.10	3.0	12	10	14	6	w.	J. W. Doncaster.
Hiram	Portage	1,260	26	50.0	+ 3.5	79	5	25	8	35	3.08	+ 0.05	1.33	2.0	13	9	9	12	ne.	Prof. G. H. Colton.
Hudson	Summit	1,153	49	50.2	+ 3.7	80	5	24	8	44	4.39	+ 1.69	1.57	.....	15	12	7	11	nw.	Dr. W. I. Chamberlain.
Lima	Allen	875	11	52.4	+ 4.0	82	29	28	13†	43	3.77	+ 0.33	1.15	3.0	8	23	1	6	w.	Miss Ollie De Long.
Medina	Medina	944	22	50.3	+ 2.8	80	5	23	13	49	4.04	+ 0.90	1.08	10.0	12	11	4	15	nw.	F. W. Clark.
Montpelier	Williams	880	18	51.0	+ 3.3	83	29	27	13†	40	3.99	+ 0.92	1.00	T.	11	14	7	9	e.	G. L. Laser.
Napoleon	Henry	680	24	52.1	+ 3.6	82	29	29	8	47	5.44	+ 2.78	2.21	3.0	10	13	2	15	s.	A. C. Senter.
New Bremen	Auglaize	1,038	17	52.6[a]	+ 2.8	83	30	26[a]	24	41[a]	2.40	− 0.16	0.86	3.0	7	14	9	7	sw.	Miss Lillian Grothaus.
North Royalton	Cuyahoga	1,000	18	49.3	+ 2.3	78	5	25	8	37	3.63	+ 0.89	0.87	10.0	12	11	11	8	nw.	W. S. Edgerton.
Norwalk	Huron	719	24	49.0	+ 1.7	81	29	25	13	46	5.69	+ 3.25	1.35	6.0	13	14	0	16	se.	Dr. Albert Sheldon.

TABLE 1.—*Climatological data for April, 1910. District No. 4*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Ohio—Cont'd.																				
Oberlin	Lorain	855	35	50.2	+ 2.9	81	5	25	13	46	4.96	+ 2.35	1.35	6.0	10	2	4	24	s.	Prof. F. F. Jewett.
Ottawa	Putnam	720	18	51.6	+ 2.0	83	29	24	13	47	4.65	+ 1.82	1.43	6.0	10	2	11	17	w.	Prof. J. T. Maidlow.
Rome	Ashtabula	894	3	.....	.....	.....	.....	.....	.....	.....	4.88	+ 3.07	1.14	T.	8	17	5	8	sw.	G. H. Crosby.
Sandusky	Erie	629	33	50.0	+ 2.7	82	29	32	19	34	6.24	+ 3.69	2.00	5.0	16	10	8	11	sw.	U. S. Weather Bureau.
Tiffin	Seneca	775	28	51.2	+ 2.4	81	29	30	8†	37	5.92	+ 3.07	1.65	11.0	12	11	12	7	s.	Prof. T. H. Sonnedecker.
Toledo (1)	Lucas	769	39	50.5	+ 3.2	82	29	33	7	39	5.79	+ 3.51	2.50	0.1	16	11	8	11	sw.	U. S. Weather Bureau.
Toledo (2)§	....do	606	6	51.1	.....	82	29	31	13	39	5.15	.....	2.02	T.	17	14	1	15	n.	J. A. Krance, S. J.
Upper Sandusky	Wyandot	854	27	52.5	+ 2.6	81	29	25	13	43	3.82	+ 0.92	0.82	8.0	9	13	10	7	w.	Prof. R. J. Kiefer.
Vickery	Sandusky	588	17	49.9	+ 2.2	82	29	25	13	47	6.83	+ 4.27	2.10	9.5	13	7	13	10	s.	John W. Barr.
Wauseon	Fulton	780	38	49.4	+ 2.3	82	29	26	13	39	5.62	+ 2.56	2.10	1.0	13	10	9	11	s.	Thomas Mikesell.
Wellington	Lorain	856	16	51.2	+ 3.2	81	29	26	13	48	4.84	+ 2.18	1.45	6.0	13	11	5	14	sw.	W. D. Warren.
Willoughby	Lake	649	16	.....	.....	.....	.....	.....	.....	.....	3.73	+ 1.60	1.49	2.0	9	4	11	15	s.	C. J. Richardson.
Pennsylvania.																				
Erie	Erie	713	37	48.2	+ 3.5	82	5	31	7	29	2.23	− 0.17	1.02	0.3	12	6	8	16	s.	U. S. Weather Bureau.
New York.																				
Adams Center	Jefferson	540	19	45.2	+ 5.1	82	5	26	13	38	1.34	− 1.31	0.42	2.0	8	7	19	4	se.	A. E. Cooley
Angelica	Allegany	1,340	27	47.5	+ 4.2	79	5	16	13	48	5.92	+ 3.00	1.29	1.0	13	.....	.....	.....	w.	Charles P. Arnold.
Appleton	Niagara	270	19	46.9	+ 2.8	72	5	26	13	38	4.52	+ 2.48	1.07	T.	11	8	14	8	sw.	H. A. Van Wagoner.
Auburn	Cayuga	715	41	49.0	+ 4.0	80	5	28	8†	32	3.67	+ 1.15	0.70	T.	10	15	7	8	n.	A. H. Underwood.
Avon	Livingston	585	15	49.2	+ 4.4	80	5	24	13	40	3.28	+ 1.19	0.85	T.	9	14	7	9	.....	W. G. Markham.
Benson Mines	St. Lawrence	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. C. Folger.
Blue Mountain Lake	Hamilton	1,750	10	.....	.....	.....	.....	.....	.....	.....	3.93	+ 1.08	1.15	7.0	8	18	4	8	w.	B. F. Merwin.
Brockport	Monroe	537	14	48.9	+ 4.3	85	5	27	12†	34	4.41	+ 1.56	0.83	T.	17	9	12	9	.....	W. H. Lennon.
Buffalo	Erie	767	59	47.0	+ 4.7	80	5	28	7	37	4.34	+ 1.89	0.92	0.2	17	10	4	16	sw.	U. S. Weather Bureau.
Canton	St. Lawrence	448	16	47.6	+ 5.1	78	5	25	11	30	1.61	− 0.61	0.61	0.7	13	8	11	11	sw.	Do.
Cape Vincent	Jefferson	246	5	46.0	.....	72	5	26	10†	32	2.32	.....	1.04	.....	7	8	15	7	s.	Verne M. Rice.
Carvers Falls	Washington	243	12	48.4	+ 5.5	77	6	23	11	37	3.36	+ 0.98	1.21	.....	7	16	9	5	s.	Washburn Fancher.
Chasy	Clinton	151	10	48.8	+ 6.3	75	24	24	11	32	1.20	− 0.38	0.50	.....	6	15	6	9	s.	W. R. North.
Dannemora	Clinton	1,490	5	46.6	.....	74	5	20	11	32	2.26	.....	0.51	6.0	11	7	11	12	w.	W. N. Thaver.
Elba	Genesee	500	11	47.4	+ 4.8	80	5	23	13	41	5.86	+ 2.72	1.20	1.0	12	17	4	9	sw.	Jos. S. Wilford.
Fayetteville	Onondaga	530	9	50.4	.....	84	5	25	13	41	1.74	− 1.01	0.32	T.	14	8	8	14	nw.	Dana H. Wells.
Gabriels	Franklin	1,729	8	45.6	.....	74	5	12	11	36	0.89	.....	0.22	6.8	13	10	11	9	se.	Sanatorium.
Harkness	Clinton	622	8	47.5	.....	77	6	23	11	33	1.27	.....	0.34	0.5	9	24	3	3	w.	J. W. Harkness.
Hemlock Lake	Livingston	900	12	47.9	+ 4.0	75	5	24	13	38	3.80	+ 1.27	1.35	.....	6	10	8	12	n.	D. H. Westbury.
Hunt	....do	1,321	11	50.5	+ 6.0	85	5	20	13	45	5.83	+ 2.87	1.08	.....	12	9	12	9	ne.	W. S. Barrager.
Ithaca	Tompkins	928	32	49.8	+ 5.6	81	5	26	13	41	3.66	+ 1.37	1.11	1.1	15	10	5	15	se.	U. S. Weather Bureau.
Keene Valley	Essex	1,000	12	47.3	+ 6.4	79	5	20	11	41	3.30	+ 0.57	1.56	2.5	7	15	6	9	nw.	E. R. Wells.
King Ferry	Cayuga	.....	10	.....	.....	.....	.....	.....	.....	.....	3.32	+ 0.74	1.04	1.2	11	14	4	12	se.	Lucius A. Goodyear.
Lake George	Warren	350	13	48.9	+ 5.2	79	6	24	13	32	3.20	+ 0.47	1.05	2.1	9	8	13	9	.....	Charles Forsell.
Lake Placid Club	Essex	1,864	2	41.8	.....	69	5	13	11	40	2.63	.....	0.58	10.7	11	7	16	7	nw.	Henry van Hoevenberg.
Le Roy	Genesee	920	20	49.4	+ 6.0	83	5	26	8†	38	5.56	+ 2.50	1.05	1.6	16	9	7	14	se.	F. W. Ball.
Lockport	Niagara	650	23	48.0	+ 2.3	79	5	26	13	34	4.22	+ 2.02	1.05	T.	5	11	6	13	sw.	J. E. Wakeman.
Lowville	Lewis	900	43	45.8	+ 3.2	78	5	22	11†	38	1.85	− 0.39	0.67	.....	4	13	5	12	s.	Charles J. Rice.
Lyndonville	Orleans	.....	14	.....	.....	.....	.....	.....	.....	.....	4.88	+ 3.07	1.14	T.	8	17	5	8	sw.	Milton St. John.
Moira	Franklin	200	10	48.0	+ 5.4	77	5	23	11	33	1.44	− 1.04	0.78	1.5	11	2	16	12	w.	C. E. McBride.
Nehasane	Hamilton	1,750	2	44.0	.....	73	5	16	13	42	2.37	.....	0.45	2.0	11	13	4	13	e.	A. C. Heyburn.
North Lake	Herkimer	1,822	9	45.3	.....	75	5	15	8	37	3.92	.....	1.28	9.0	7	9	10	11	.....	H. A. Paull.
Ogdensburg	St. Lawrence	175	26	48.0	+ 3.9	74	26	25	11	30	2.09	0.00	0.66	5.0	9	9	15	6	w.	State Hospital.
Old Forge	Herkimer	1,733	2	45.7	.....	76	5	15	13	44	2.31	.....	0.89	0.8	15	8	7	15	.....	Stuart W. Nelson.
Oswego	Oswego	335	40	47.4	+ 4.2	80	5	30	8	30	2.00	− 0.26	0.48	1.0	16	8	9	13	se.	U. S. Weather Bureau.
Otto	Cattaraugus	1,410	6	49.2	.....	77	5	25	8†	36	3.17	.....	0.83	.....	11	12	6	12	.....	William Winke.
Palermo	Oswego	460	51	.....	.....	.....	.....	.....	.....	.....	1.46	− 0.74	0.40	2.5	9	15	5	10	se.	E. B. Bartlett.
Perry City	Schuyler	1,038	30	48.4	+ 5.3	80	5	21	13	45	5.32	+ 2.57	1.62	3.5	15	8	10	12	s.	W. H. Jeffers.
Philadelphia	Jefferson	485	4	49.6	.....	80	5	24	11	37	1.76	.....	0.96	1.0	12	5	17	8	s.	E. D. Babcock
Plattsburg	Clinton	170	60	48.4	+ 7.0	76	6	27	11	29	1.75	− 0.22	0.30	T.	10	9	13	8	nw.	T. P. Davison.
Potsdam	St. Lawrence	300	34	49.4	+ 6.1	78	5	24	11†	32	1.74	− 0.12	0.59	T.	11	11	5	14	nw.	Lloyd W. Weed.
Raquette Lake	Hamilton	.....	2	45.0	.....	68	24	24	11†	38	2.87	.....	0.86	4.2	8	6	11	13	sw.	R. J. Dunning.
Rochester	Monroe	523	81	49.7	+ 5.8	83	5	29	13	31	3.10	+ 0.66	1.13	0.5	16	10	8	12	w.	U. S. Weather Bureau.
Romulus	Seneca	719	18	51.3	+ 5.7	82	5	27	13	45	3.95	+ 1.46	1.47	2.0	12	9	9	12	nw.	John H. Coryell.
Shortsville	Ontario	740	11	49.1	+ 5.1	80	5	26	13	36	3.92	+ 1.61	1.47	.....	12	12	9	9	w.	C. H. Latting.
Skaneateles	Onondaga	.....	15	.....	.....	.....	.....	.....	.....	.....	3.04	+ 0.16	0.74	.....	16	.....	.....	.....	.....	Edward Conron.
Syracuse	....do	597	8	49.2	+ 4.8	80	5	30	8	32	1.39	− 0.92	0.39	0.3	16	8	8	14	nw.	U. S. Weather Bureau.
Ticonderoga	Essex	344	12	.....	.....	.....	.....	28	1†	30	1.05	− 0.87	0.60	T.	7	15	8	7	n.	Eva M. De Lano.
Trudeau	....do	1,620	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Daniel Smith.
Tupper Lake	Franklin	1,552	10	45.4	+ 6.6	72	5	20	11	36	0.46	− 1.61	0.15	1.5	6	19	2	9	w.	Aaron W. Maddox.
Volusia	Chatauqua	1,167	11	47.2	+ 4.9	80	5	25	7	34	2.11	− 0.72	0.55	3.0	12	11	7	12	n.	Benjamin Breads.
Watertown	Jefferson	737	18	49.2	+ 5.0	82	5	25	11†	34	1.42	− 0.94	0.75	.....	11	5	17	8	n.	L. L. Allen.
Wedgewood	Schuyler	1,430	21	48.0	+ 4.2	78	5	20	7	36	6.62	+ 3.75	2.20	2.0	19	14	10	6	nw.	Orlando F. Corwin.
Westfield	Chatauqua	837	14	47.8	+ 3.1	81	5	27	13	39	3.29	+ 0.83	0.56	2.0	16	.....	.....	.....	.....	John R. Rogers.
Youngstown	Niagara	.....	8	.....	.....	.....	.....	.....	.....	.....	4.68	.....	1.20	.....	11	5	22	3	e.	B. V. Brookins.
Vermont.																				
Burlington	Chittendon	404	3	47.2	+ 6.5	74	6	26	11	28	2.10	+ 0.23	0.52	1.8	13	6	13	11	nw.	U. S. Weather Bureau.
Cornwall	Addison	507	17	49.0	+ 3.7	77	6	26	11	31	2.21	+ 0.65	0.40	T.	10	8	13	9	s.	C. H. Lane.
Enosburg Falls	Franklin	601	19	48.1	+ 5.4	78	6	22	11†	38	3.10	+ 0.86	0.59	4.0	14	13	10	7	s.	L. Howe Pomeroy.
Northfield	Washington	876	24	45.3	+ 5.1	78	6	22	11	35	2.17	+ 0.08	1.03	T.	12	3	15	12	s.	U. S. Weather Bureau.
Rutland	Rutland	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. L. Hindley.
Wells	....do	750	19	46.8	+ 5.0	73	6	22	11	28	2.14	+ 0.26	0.49	6.0	10	6	16	8	s.	E. R. Pember.

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for April, 1910. District No. 4, Lake Region.*

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Minnesota.																																	
Cloquet	Lake																																
Duluth	do				.01							T.				.61	.60	.04	T.			.09		.05						T.			1.40
Floodwood	do				.17	.03										.20		.53					.28									1.21
Mount Iron	do			.06	.04	.14										.57	T.	1.50	.04			.12	.20	T.							T.		2.67
Stephens Mine	do			T.	T.	.02										.30	.08	.67	.02			.27	T.	T.						.02			1.38
Two Harbors	do				T.											.60		.90						T.									1.50
Wisconsin.																																	
Appleton	Fox			.03	.05	.48	.65					.18				.13	.35	T.	.03				.63	.74	T.	.05	.07	.01					3.40
Ashland	Lake					.05										.27	.37	.57					.15	.17	.20								1.78
Cecil	Fox			T.	.04	1.28	.07		T.			.04				.13	.09	.38	.49				.80	.75	.20	.16	.04						4.47
Chilton	do			.03		.83	1.18					.05				*	.41	.36	.34				.35	.60	T.	.08	.50	.10					4.83
Crandon	do					.90	.10									.15	.06	.45	T.				.60	.40	.30								2.96
Florence	Menominee						.93		.10							.09	.11	.48					*	*	2.33								4.04
Fond du Lac	Fox			.02		.35	1.06					T.				T.	.10	.40	.13	.10			.38	1.27		.27	.42	.12					4.62
Grand River Locks	do			T.		.53	.58									.24	.43	.27	.08				1.58	.12		.13	.26						4.22
Green Bay	Lake			.02	.18	.92	.55		.01			T.				.15	.36	.10	.28				1.01	.59	.05	.21	.47	T.	T.				4.90
Herbster	do																																
Iron River	do					.05										.28	.25	.12					.28	.25	.10								1.33
Kewaunee	do					.45	.60										.44		.30				*	1.50		.30	1.00						4.59
Manitowoc	do			.02		.60	.50					.10			.15	*	.28	*	.83				*	1.39		.36	.30						4.73
Menasha	Fox			.02	T.	*	.90					.37				.13	*	*	.26				*	.86	*	*	.60	.04					3.18
Menominee Falls	Lake			.06	.29	.35	.27					.03				.10	.52	.11	.18	.07			.77	.87	.10	.46	.18	.11					4.47
Milwaukee	do			T.	.22	.12	.05					.04				.01	.49	.01	.10				1.06	.67	T.	.51	.20			T.	T.			3.48
New London	Fox			T.	.02	*	1.80					.20				.08	.53	*	.40				1.35	1.30	T.	.21	T.						5.89
Oconto	Lake				.19	.62	.54									.26	.27	.22	.04				.62	*	.25	.55	.27						3.79
Oshkosh	Fox			T.		.41	.10					.60				.13	*	*	.55				.65	1.00	T.	*	.60						4.04
Pine River	do		.03			.72	.63					.06				.08	.49	.03	.03				1.01	.62	.07	.01	.12						3.90
Plum Island	Lake				.19	.85	.30					T.				.30	.13	.21	.09				.18	1.33	.21	.19	.83	.04					4.85
Port Washington	do				.05	.21						.27				.10	.30	.16	.21				.51	.43		.33	.65						3.22
Racine	do				.11	.13	.02					T.	.10			T.	.48	.15	.05	.02			.30	.62	T.	.38	.15	.10		T.	.05			2.66
Sheboygan	do			T.	.09	.16	.57					T.				.16	.05	.28	.40	.04			.37	.60	T.	.67	.31	.06					3.76
Sturgeon Bay	do			.03	.04	.71	.64									.21	.04	.35	.19	.02			.43	.32	.39	.37	.81	.51	.03				5.09
Superior	do				T.											.56	.04	.55					.06		.02								1.23
Waupaca	Fox			.02		.88						.15				.07	.53	T.	.45				2.17	.09	.25	.07	.05						4.73
Illinois.																																	
Chicago	Lake Michigan			T.	.43	.21	.01					.42				T.	.19	.03	.05				.69	.21	.20	.52	.22	.03		T.	.63			3.84
Indiana.																																	
Auburn	Maumee				.23	.05	.22						.12			.02	.03	.36	.04	1.15	.04			.43	.03		.02	.29						3.03
Berne	do			.87		.13	.05										.41	.01	.21	.74	.12	.02	.06	.21	.03		.08	.01					2.95
Elkhart	St. Joseph			.01	.39	.03	.28					T.	.04			.06	.36	.89	.72	.06	.02		T.	.40	T.	.07	.02	.05					3.40
Fort Wayne	Maumee			.22	.08	.10	.10									.06	.02	.38	.17	.93	.04		.13	.35	.08		.45						3.11
Hammond	Lake Michigan				1.10	.06	.10					.16					.22	.12	.10				.42	.49	.10	.15							3.02
Howe	St. Joseph				.33		.35						.75			.13		.55	.17	.08					.55				.70				3.61
South Bend	do				.20	.03	.12	T.					.18			.03	.18	.49	.66	.03				.28	.08	.06	.23	.40					2.97
Whiting	Lake Michigan				1.14	.12	.03					.20					.15	T.	.09	.72						.25	.40				T.			3.10
Michigan—Upper Peninsula.																																	
Baraga	Lake																																
Bergland	Ontonagon					.22						T.					.20	.19	T.	T.			.10	.30	T.					.03			1.04
Blaney	Manistique																																
Calumet	Lake					.33						.02		T.		.02	.69	.31		T.			.21	.64	.12					T.	.02			2.36
Chatham	do			T.		.68	.46		.06			.05				.16	.04			.07			.12	.48	.36	.12		.01					2.61
Deer Park	do	T.				.40				T.		T.				.30	.35	T.						.40	.60	.40	.25	T.					2.70
Detour	St. Marys								.20			T.				.25	.02	.66						.26	.38	.12	.47	.10					2.46
Eagle Harbor	Lake				T.	.45		T.				T.		T.		.60	.38	.35					1.00	T.				T.					2.78
Escanaba	do			.01	.10	1.09	.01		T.		T.	.03				.42	.99	.02	T.	T.			.53	1.03	.48	.15	.01		T.	T.			4.87
Ewen	Ontonagon								.01			T.				.01	.10	.31	T.	T.			.13	.80	.10						T.		1.46
Grand Marais	Lake					.20					.20	.30								.01				.30	.20	.01		T.					1.22
Houghton	do	T.			.06	.27					T.	.02		T.		T.	.47	T.	.01				.54	.67							T.		2.04
Humboldt	Escanaba					1.00										T.	T.			T.			T.	.60	.10								1.70
Iron Mountain	Menominee					1.03	.23		.13								.15	.66					.85	1.05	.46	.18			.61				4.75
Iron River	do				T.	.90	.30					T.					.40	.30					.40	.50	T.								2.80
Ironwood	Lake					.01										.23	.12	.35	.14					1.15	.13								2.13
Ishpeming	Escanaba					.40	.20		.10			.05				.30	.20	.35		.05			.35	.40	.40		.10				T.		2.90
Isle Royale	Lake																																
Mackinac Island	do																																
Maple Ridge	do					.98	.14									.40	.38	.10					.25	.20	.10	.50							3.05
Marquette	do					1.05					T.	.02		T.		.22	.23	T.		.01			.70	1.04	.21	.28	.10		.02	.01			3.89
Menominee	Menominee				.46	.86		T.								.15	.35	.16					.45	.08	.10	.24	.18						3.03
Newberry	Tequamenon																								.20	.10							
Powers	Lake																																
St. Ignace	do					.25	.70				.05	.06				.02	.01	.24						.20	.05	.28	.35	.22	.04				2.47
Sault Saint Marie	St. Marys	.08				.40	.19					.06				.09	.16	.63						.11	.22	.15	.41	.03	T.				2.53
Thomaston	Lake					T.										.40	.15	.31		.05				.40									1.31
Victoria	Ontonagon					.28										T.	.20	.21		T.			.19	.55							.02		1.45
Watersmeet	do					.94			.06							.05	.15	.42	.01	.02			.32	.26	T.		T.						2.23
Wetmore	Lake					.85										.30							.25	.40	.20	.35							2.35
Whitefish Point	do					.03	.02					.05				.10	.16	.30						.10	.50	.18	.19	.02	T.				1.65
Michigan—Lower Peninsula.																																	
Adrian	Raisin			.15	.30	.28	.04									.05	.57	.28	.45	.47	.14		.16	.05	.02	.35	.33				T.			3.64
Agricultural College	Grand			T.	.15	T.	T.									.15	.10	.25	.20	.05	.10		.05		.05	.50	.73	.10			.05			2.48
Allegan	Kalamazoo				.21	.07	.02					T.				.08	T.	.89	.57				.11	.32	.14	.59	.51	T.			.41			3.92
Alma	Saginaw			T.		.06	.24					.04				.16	T.	.60	T.				T.	.26	T.	.81	.57	.18	.09	T.	.06			3.07
Alpena	Lake					.14	.17				.02	.12				.32	.08	.67		.03	.37			.31	.01	.33	.19	.01	T.	.05				2.82
Ann Arbor	Huron			.01	.28	.13	.14									.03	.01	.42	.17	.25	.46	.01	.03	.07	.10	.47	.74	.05	.03	.01				3.41
Arbela	Saginaw				.55		.31					.05				.21		.65		.18	1.28				.41	1.10	.22	.24	.15	.03	.10			5.48
Battle Creek	Kalamazoo			T.	.18	.05	.35							T.		.20		.65	.40	T.			.05	.14	.17	.64	.67	.11					3.61
Bay City	Saginaw				T.		.20					.10				.15		1.00		.40	.50			.70	1.00	1.50	.20		.40	.20			6.35
Bensonia	Betsie					.30	.85										.05	.32					.05	1.02	.01	.13	.10	.27					3.10
Berlin	Clinton			T.	.10	T.	.29									.21	T.	1.65		.28	1.35		T.	T.	.25	.49	.52	.05	.01	T.	T.			5.20
Big Rapids	Muskegon					.01	.24					.06				T.	.02	.65	.03				.16	.37	.04	.62	.32	.12	.08					2.72
Bloomingdale	Lake			T.	.15	T.	T.					T.				T.			.67				.50	.30	.43	.66		.43		.15			3.29
Cadillac	Manistee					.25	.08					.32				.02	.11	.90	T.				.10	.51		.50	.25	.08	.05	.02				3.19
Cassopolis	St. Joseph																																
Charlevoix	Lake					.12	.20											.11						.60		.50	.24						1.77
Charlotte	Kalamazoo				.22	.01	.48									.06	T.	.70	.25	T.	.03		.09	.10	.16	.58	.76	.13			T.			3.51
Cheboygan	Cheboygan				.08	.30	.86				T.	.05				.10		.50						.30	.10	.47	.48							3.24
Clinton	Raisin			T.	.41	.02	.12									.11	.05	.50	.33	.26	.15		.10		.25	T.	1.03			T.				3.33
Coldwater	St. Joseph			T.	.65	T.	.26									.08	.05	.50	.25	.04			.20	.22		.27	.51							3.03
Concord	Kalamazoo			T.	.55	T.	.15									.06	T.	.87	.20	T.	T.		T.	.15	.20	.45	1.10	T.						3.73
Croton	Muskegon			T.		T.	.13									.68	T.	.51	.26	.08			.08	.24		.65	.22	.07	T.	T.	T.			2.32
Detroit	Detroit			.15	.42	.13	.08					T.				.08	.43	.89	.01	.64	.42		.02	T.	.35	.46	.52	T.	.11	.02				4.73
Durand	Saginaw			T.	.29	T.	.24									.20	T.	.34	T.	.09	.55	T.		.13	.19	.51	.49	.13	.13	.01	T.			3.30

TABLE 2.—*Daily precipitation for April, 1910. District No. 4*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Michigan—Lower Peninsula—Cont'd.																															
East Tawas	Lake						.12					.10				.40	.20	.40		.10	.45		.10		T.	.45	.05					2.37
Eloise	Rouge		T.	T.	.43		.05									.02		.73	.04	.41	.87		T.	.02	.18	.30	.60		.12	.02	T.	3.79
Flint	Saginaw				.07	.30	.08	.25									.25	.45	.10	.05	.75	.35		.15	.08	.35	.80	.20	.20	.05	.03	4.51
Frankfort	Betsie					.16	.20										.25	.25						.95		.10	.25	.05				2.22
Ganges	Lake				.05		.07					T.				T.	T.	.36	.59					.30	.11	.52	.51	.06				2.57
Gaylord	Cheboygan					T.	T.									T.		.02					.07			.11	.05					0.25
Gladwin	Saginaw					T.	T.				T.					T.	T.	.15								.45	.15					0.75
Grand Haven	Grand				.01	.11	.02					.02				.02	.28	.21	.57				.41	.05	.01	.65	.44			T.	.08	2.88
Grand Rapids	do			T.	T.	.09	.01					T.				.03	.52	.06	.69	T.			.24	.01	.02	.67	.68			T.	.14	3.16
Grape	Raisin			.02	.67	.02	.05					T.				.09	T.	.71	.34	1.63	.70		.01	.04	.21	.11	.41		.02	T.		5.03
Grass Lake	Grand				.18	.58	.35									.15	.10	.25	.40	.10	.15			.12	.37	.40	.70	.10		T.		3.95
Grayling	Au Sable																														
Harbor Beach	Lake				.10		.10					.10				60		1.10		30	1.20					.20						3.70
Harrison	Saginaw						1.09																		.89		.14					2.12
Harrisville	Lake						.20					.17				.43	T.	.88		.14	.82			.18	.03	.47	.18	T.	T.	.03			3.53
Hart	Pentwater					.10	.15											.35	.25				.26	.24	.08	.05		.02		.10		1.64
Hayes	Pigeon				.56		.18									.47		.65		.25	.85					.38						3.34
Highland	Huron				.05	.34	.12									.10		.61		.36	.76				.35	.55	1.05	.15				4.44
Hillsdale	Saint Joseph			.02	.40	.05	.22					T.				.13	T.	.26	.26	.10	.10		.15	.13	.07	.07	.58			T.		2.54
Holland	Lake					.03	.02									.05	.33	.12	.50				.02	.35	.09	.51	.99	.06		.12		3.19
Howell	Saginaw		T.	T.	.05	.05										.25		.60	.20	.40	.45				.50	.90	1.40	.16	.07			5.03
Ivan	Manistee				.02	.02	.60					.05				.05	.05	.17					T.	.47		.11	.30	.02	.24			2.10
Jackson	Grand																														
Jeddo	St. Clair				.09	T.	.34	T.				.11				.01		1.17		32	1.04				T.	.66	.14	.06		.10	T.	4.04
Kalamazoo	Kalamazoo			T.	.31	.10	.12									.13	.05	.74	.34				.03	.10	.18	.53	.67			T.		3.30
Lansing	Grand			.02	.18	.05	.13				T.					.14	.02	.57	.22	.03	.05		.08	.04	.06	.58	.73	.13	.01	T.	.14	3.18
Lapeer	Saginaw																														
Ludington	Pere Marquette					.12	.15												.76				.05	1.40		.74	.63					3.85
Luther	Manistee					T.	.37				T.	.05				T.	T.	.62	.03	T.			.10	.49	T.	.20	.14	.09	.07	.01		2.17
Mackinaw	Lake						.10																	.50		.38	.48	.05				1.51
Mancelona	do					T.	T.										.05							.13	T.	.06	.11		.04			0.39
Manistee	Manistee					.20	.70					.02					.27	.12	.04				T.	1.70		.35	.09	.44	.05	.05		4.03
Midland	Saginaw				T.	.01	T.										T.	.01			.15				.25	.35	.25	T.	T.			1.02
Montague	White					T.	.20									.10	.37		.54					.45			.68					2.34
Morenci	Maumee			.40	.59	.18	.20					.03				.01	.69		.20	1.15	.14		.24		.02		.65					4.50
Mount Clemens	Clinton				T.	T.	.19													.45	.63			T.	.27	.64	.70	.11	.05	.04		3.08
Mount Pleasant	Saginaw						.76				16							.12	.71						18	1.12	.28					3.33
Muskegon	Muskegon					T.	T.					T.				T.		T.	.08				T.	.10	T.	.08	.45	T.				0.71
Old Mission	Lake					.76	.92											.45						.83		.13	.66		.22			3.97
Olivet	Kalamazoo			.01	.03	.05	.32						T.			.16	T.	.73	.29	T.	.02		.05	.04	.03	.66	.92	.06		T.		3.37
Omer	Lake						.20									.30		.60		T.	.40					.50	T.					2.00
Onaway	Cheboygan															.15		.40						.30	.10	.15	.10					1.20
Ovid	Grand				.35	.08	.06	.11									.12	.65	.01	.03	.06	.11		.13	.05	.17	.92	.13	.01	.06			3.05
Owosso	Saginaw				.30		.30									.02	.03	.02	.04	.02	.03			.01	.01	.08	.02	.04	.01				0.93
Petoskey	Lake					.17	.10									.01		.02						.03	.30	.15	1.18					1.96
Plymouth	Rouge				.30		.20											.88			.93					.50	.20					3.01
Pontiac	Clinton			T.	.10		.10									.13	.03	.80	T.	.18	.58		T.		.36	.50	1.03	.09	.18	.02	T.		4.10
Port Austin	Lake																														
Port Huron	St. Clair				.03	.02	.20		T.			.01				.13	.05	.99		.46	.64		.01	.01	.03	.60	.20		T.	.03	.09		3.50
Reed City	Muskegon																														
Roscommon	Au Sable					T.	.28					.05				.06							T.	1.00		.18	.40		.13			2.10
Saginaw	Saginaw			T.	.02		.25	.05				T.				.15		.60		.10	.50		T.	.30		1.00	.30	.10	.05	T.	T.	3.42
Saginaw, W. S.	do			T.	.32	.03	.33	T.				.05				.12	T.	.62	T.	.15	.54		T.	.24	.13	1.00	.38	.15	.28	.07	.06		4.47
St. James	Lake						.70											.27					.50	.10	.30	.27	.20					2.34
St. Johns	Grand																														
St. Joseph	St. Joseph				.60	.02											.02	.05	.04					T.	.04	.38	.11	.04		T.		1.30
Sandusky	Lake				.25		.58	.02				.02				.14		1.40		.25	1.17					.59	.13	.10					4.65
Saranac	Grand				.11	.01	.01									.15		.70	.63				.11	.16		.84	.48			.22		3.42
South Haven	Lake						.20									T.	.40		T.					.05		.60				.20		1.45
Stanton	Grand																														
Thornville	Saginaw				.12		.90									.60		1.10		.05	.85			.20	.50	.80	.02	.18	.20	T.	.15		6.27
Traverse City	Lake				1.00		T.																1.00	.50								2.50
Vassar	Saginaw																														
Wasepi	St. Joseph			.18	.28	.10	.51						.05			.16	.75	.29	.25				.10	.25	.15	.16	.72	.08				4.03
Webberville	Grand			T.	.25	.05	.22									.11		.53		.25	.30		T.	.13	.12	.52	.80	.10	.12		T.		3.50
West Branch	Lake																														
Woodlawn	Au Sable						.78					T.					.03	.06						.40		.30	.48					2.05
Ypsilanti	Lake			.01	.35	.13	.06					T.				.02	.01	.67	.26	.53	.43	T.	.01	.05	.20	.43	.76	.01	.05	T.	T.		3.98
Ohio.																															
Akron‖	Lake	T.			.10	.84	.06	.07									.01	.47	.01	.33	.25	.01	.01	.01	.36	.03	.30	.09	T.	.03			2.98
Benton Ridge	Maumee			T.	.80	T.	.28										T.	.45	.22	1.75	1.10	.05		T.			.58					5.23
Bowling Green	Lake			.20	.90	.10	.06					.12					.15	.68	1.52	.00	.90						.60					5.86
Bucyrus	Sandusky				.80	.45	.20	.02										.75	.25	.35	.65	.20					.60	.35	T.			4.62
Cleveland (1)	Lake			T.	1.33	T.	.08	.02		T.		.02				T.	T.	.42	T.	.42	.34	T.	T.	.02	.35	.09	.21	.02	T.	.02	T.		3.34
Cleveland (2)	do				1.37	.07	.01					.05					T.		.43	T.	.53	.45		T.	.36	.13	.22	.02		.03			3.67
Defiance	Maumee				.05	T.	.11	T.					T.			T.		.22	.09	1.08	.76	.13		.24			.31	.05		T.			3.04
Findlay‖	do				.52	.39	.39	.02										.83	.08	.29	2.00	.18		.02			.47	.10			T.		5.29
Fremont	Sandusky		.55	1.01	.09	.05											.05	.95	.08	2.40	1.76			.03	T.		.55						7.52
Hedges	Maumee		.22	.26	.22	.06											.45		.32	1.27	.44		.09	T.			.34					3.67
Hillhouse	Lake		T.	1.10	.10	.05	.16											.25	T.	.45	.10	.02	T.		.16	.40	.35	T.		.05		3.19
Hiram	do		T.	1.33	.17	.03	.09						T.					.20		.46	.22	.02		.04	.20	.17	.06			.09		3.08
Hudson	do			1.57	.30	.01	.13									.01		.58		.60	.42	.02			.35	.03	.24	.04	.02	.07		4.39
Lima	Maumee		T.	.26		.13											.05	.50	.13	1.15	1.03	T.	T.				.52					3.77
Medina	Lake			.97	.33	.06	.07									T.		.48		1.08	.18				.48	.06	.24	.05	T.	.04			4.04
Montpelier	Maumee		.32	.17	.45	T.						.38				.07	.50		.25	1.00	.13		.22	T.			.50					3.90
Napoleon	do		T.	1.00	.21	T.						.05				T.	.10	.41	.15	2.21	.64					.07	.60					5.44
New Bremen	do		.22		.03	.13													.60	.86			.18	.38								2.40
North Royalton	Lake		T.	.87	.04	.06	.12						T.			T.		.61	T.	.46	.42				.40	.18	.36	.07		.04			3.63
Norwalk	do			.20	.87	.07	.04											.60	.56	1.35	1.10	.14		.08	.06	.08	.34	.30	.06			5.65
Oberlin	do			1.27	.01								T.					1.35	T.	.73	.85		T.	T.	.42	T.	.20	.08	.03	.02	T.		4.96
Ottawa	Maumee		.72	.15	.20	.10											T.	.55	.31	1.43	.60	T.	.02	T.			.57						4.65
Rome	Lake																														
Sandusky	do		.25	1.75	.02	.05						.05					.10	1.02	.23	1.57	.43		T.	.01	.13	.20	.33	.02	.08	T.	T.		6.24
Tiffin	Sandusky		.13	.81	T.	.07											.26	.72	.60	1.65	1.10			.05		.06	.44	.03			T.		5.92
Toledo (1)	Maumee		.15	.50	.10	.03						.33				.04	.36	.43	.72	1.97	.44		.04	.01	.03	.06	.58		T.	T.			5.79
Toledo (2)	do		.06	.60	.05	.08	T.					.22	.01			.02	.01	.75	.12	2.02	.50	.05	.05	.02	.04	T.	.55		T.	T.	T.		5.15
Upper Sandusky	Sandusky		.08	.78	T.	.07											.08	.82	.10	.80	.50						.59						3.82
Vickery	Lake			1.75	.03	.09											.03	1.07	.06	2.10	1.13			.03	.05		.42	.02	.05	T.	T.		6.83
Wauseon	Maumee			.43	.27	.31	T.						.25				.06	.57	.17	1.40	1.20	.12		.17	T.		.43	.24		T.			5.62
Wellington	Lake			1.45	.03	.07	.05						T.					1.08		.79	.77	.01		.02	.24		.26		.05	.02			4.84
Willoughby‖	do			.07	1.49														.40	.20				.87	.03	.23	.34	.10					3.73
Pennsylvania.																															
Erie	Lake			T.	.43		.08	.02		T.		T.				.11	T.	.07	T.	.26	.02	.12		.02	.11	.97	T.			.02	T.		2.23

TABLE 2.—*Daily precipitation for April, 1910. District No. 4*—Continued.

Stations.	River basins.	Day of month.																													Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
New York.																															
Adams Center	Lake							.06	.14			.17			T.				.42	.17	T.	T.			.14	T.	T.	T.	.07		.17		1.34
Angelica	Genesee				.28			.19	T.			T.					.38	.03	.79	.50	.12	.21		.05	1.29	.57	.80			.71		5.92
Appleton	Lake				T.		T.	T.		T.		.10				T.	.05	.48	.27	1.07	.10	T.		.10	.65	.25	.66			.79		4.52
Auburn	Oswego				T.	T.	.20	.30				.40						T.	.50	.65	.12			.40	.70	.20				.20		3.67
Avon	Genesee							T.	T.			.02							.32	.35	.25	.13		T.	.85	.35	.39			.62		3.28
Benson Mines	St. Lawrence																														
Blue Mountain Lake	Raquette						.20	.40	.20	.25									.63	.23						.87	1.15					3.93
Brockport	Lake				.03		.01	.02	.09	.01		.24				.04		.34	.47	.35	.47	.05		.03	.83	.62	.33		T.	.48		4.41
Buffalo	Lake				.08		.02	.02		T.		.04				.30	.09	.50	.06	.74	.11	.07		.33	.43	.55	.08	T.		.90	.02	4.34
Canton	St. Lawrence						.01	.08	.04	.05		T.			.03			.15	.49	.15	.01	T.		T.		.12	.34	.11		T.	.03	1.61
Cape Vincent	do							.17				.06							1.04	.37					.55		.10			.03		2.32
Carvers Falls	Lake				.66				.34	.29									.65	.20						1.21	.01					3.36
Chazy	do							.15		.10									.50				.30				.03	T.			.12	1.20
Dannemora	do	T.					*	.34	.12	.51	.10	T.	T.					*	.45	.37	.01		*	.05		T.	.07	*	.11	*	.17	2.26
Elba	Lake				T.	T.	T.	.01				T.	.20				.50	.25	.60	.25	.30	.10		T.	1.00	.50	1.20			.95		5.86
Fayetteville	Oswego				T.		.14	.23	.05	.03		.32	.06					T.	.06	T.	.12	T.		.11	.16	.10	.16			.16	.04	1.74
Gabriels	Lake						T.	.04	.16	.10	.22				.02			T.	.03	.04				.02		.02	.05	.05	.09		.05	0.89
Harkness	do						.01	.27	.05	.34									.12	.10	.12		T.	.04			.22					1.27
Hemlock Lake	Genesee				T.			T.				.30							.24		.60	T.		*	1.35	.40			.91		3.80
Hunt	do				.15		.03					.20				.18			.72		.51		.42	.48	.62	.44	1.08			1.00		5.83
Ithaca	Oswego				.07		.17	.16	T.	T.		.29					.01	.02	.03	.64	.02	.04		.06	1.04	.08	T.			.41	.02	3.66
Keene Valley	Au Sable							.18	.09	.43	.06							T.	.89							T.	1.56		.09		T.	3.30
King Ferry	Oswego				.08		.15	.18	.07	.02		.26							T.	.15	.31			.77	1.04					.29		3.32
Lake George	Lake				T.		.05	.15	.04	.23								T.	1.03	.32					.27	1.05				.06		3.20
Lake Placid Club	Au Sable, W. Br.						.03	.22	.54	.32	T.				.05		T.	T.	.58	.46			T.			.05	.08		.10		.20	2.63
Le Roy	Genesee				.16		T.	.11	.06	.02		.18				T.	.03	.20	.55	.65	.29	.15		.04	1.05	.27	.91			.89		5.56
Lockport	Lake				.01		T.	.01				.15				T.	.09	.43	.12	.89	.09			.07	.35	.33	.63			1.05		4.22
Lowville	do							.15											.35		.18						.67				.50	1.85
Lyndonville	do							.16				.05								1.14	.71				.96	.16	1.00				.70	4.88
Moira	St. Lawrence					T.	.04	T.	.13	.16	.02							.03	.78	.17	.03	T.	T.			.02	T.	.02	.04				1.44
Nehasane	Lake						.03	.26	.28	.12	.14								.40	.15	.07						.45	.43	T.		.04		2.37
North Lake	do		.60					.28	.30		.16								1.28		.20						1.10					3.62
Ogdensburg	St. Lawrence						T.	.04	.50	T.		.02			.01			T.	.66	.15	.13				.03	T.	.55	T.			T.	2.09
Old Forge	Lake						.02	.02	.08	.04		.02	.03					.11	.48	.07	.07					.01	.89	.07		.20	.20	2.31
Oswego	do				.01	.01	.06	.11	T.	.01		.39						.08	.31	.14	.01			.14	.45	.04	.19	.01	T.	.04	T.	2.00
Otto	do				.12		T.										.21		.71	.15			.09	.43	.83	.30	.09	.02		.22	T.	3.17
Palermo	Lake					.10					T.	.25	.15				T.	.02	.17	.20	.12		T.	.05		.40						1.46
Perry City	do				.06		.39	.15	.20	.04		.20	.14				T.		T.	.26	.38	.11		.20	1.62	.87	.18	T.		.52		5.32
Philadelphia	St. Lawrence						T.	.06	.04			.02	T.		T.			.05	.96	.16	.10				.13	.04	.03		.09	T.	.06	1.76
Plattsburg	Lake							.30	.13	.30	.01								.30				.08	.25			.11		.07		.20	1.75
Potsdam	St. Lawrence						T.	.12	T.	.16			T.		.07			*	.59	.33	.04					.06	.09	.05	.16	.05		1.74
Raquette Lake	Raquette						T.	.86	.40	.06		T.							.43	.37						*	.55	.12	T.	*	.08	2.87
Rochester	Genesee				.02		.03	.07		.01		.18				T.	.01	.21	.17	.59	.04			.26	1.05	.10	.02		.01	.33	T.	3.10
Romulus	Oswego						.02	.20	.02			.06	.06						.04	.11	.18			T.	1.47	.86	.32			.59		3.95
Shortsville	do					.33	T.	.50				.37	.02					T.	.25	.07	.01	.05		T.	1.47	.43	.10			.32		3.92
Skaneateles	do			T.	.10	.09		.06	.10	.05	T.	.35						T.	.74	.16	.40	.02		.28	.30	.08	.09			.18	.04	3.04
Syracuse	do				.04	T.	.07	.03	.01	.01		.39				T.		.03	.04	.13	.02			.26	.04	.09	.06			.14	.03	1.39
Ticonderoga	Lake						.02	.60	.10	T.	T.								.30		T.		T.	.01		.01				.01		1.05
Trudeau	do																														
Tupper Lake	St. Lawrence						.01	.07	.13	T.									.15	.05	T.						.05			T.		0.46
Volusia	Lake				.30	.01	T.	.08								.18	T.	.01	.02	.37	.11	.20		T.	.08	.55	.20		T.			2.11
Watertown	do						T.	.10				.07			T.		T.	.05	.75	.05			.14	.12	.06			.03	.03	.02		1.42
Wedgewood	Oswego				.23		.28	.20	.10	.01		.05	.07				T.	.05	.22	.50	.19	.37		.18	2.20	.97	.29		.02	.67	.02		6.62
Westfield	Lake				.21	.17	.09	.21								.17	.02	.12	.17	.39	.31	.43		.06	.05	.56	.31			.02			3.29
Youngstown	do				.14		.04									.02	.19			1.20	.60		.39		.05	.40	.55			1.10			4.68
Vermont.																															
Burlington	Lake						.02	.29	.20	.32	.02		T.					.03	.16	T.			.20			.01	.17	.47	.02	T.	.19		2.10
Cornwall	do				T.			.30	.25	.40	.10								.14	.40	T.		.12			T.	.40	.05			.05		2.21
Enosburg Falls	do							.35	.40	.19	.35	.01	.02						.07	.01		.08	.26	.04				.39	.31		.44		3.10
Northfield	do						.20	.07	.08	.08	T.		.01						.23	.10	.02		.22			T.	.55	.48			.14		2.17
Rutland	do																														
Wells	do				.13	.05	T.	.49	.34	.14	.32	T.							.18	.05			T.			T.	.39			.05		2.14

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 4, Lake Region.*

| Date. | Wisconsin. | | | | | | Michigan, Upper Peninsula. | | | | Michigan, Lower Peninsula. | | | | | |

Climatological Data for April, 1910.

DISTRICT No. 5, UPPER MISSISSIPPI VALLEY.

GEORGE M. CHAPPEL, District Editor.

TEMPERATURE.

The first half of April, like the whole of March, was dry and generally warm, but the latter half was very changeable, giving marked fluctuations of temperature, and in the northern half of the district heavy snowfall attended by blizzardy conditions.

Mild temperature characterized the weather in North Dakota and the maximum temperatures on the 27th were without parallel during April in any of the preceding years of record. There were 11 stations within this district that recorded 90° or more, the highest being 96° at Amenia. The lowest temperature recorded was 9° at McKinney, on the 23d, making a range of 87° in 4 days.

The month was much warmer than usual in Minnesota; the excess in temperature being general and ranged from 2° to 8°, the least departures occurring in Polk, and the greatest in southern Itasca County. The mean temperature ranged from about 52° in the central Minnesota Valley to about 42° along the shore of western Lake Superior. Unusually warm periods occurred on the 9th and 10th and on the 27th and 28th. On the last date a maximum of 95° was recorded at Winnebago and Lynd No. 2, which is the highest temperature ever recorded in the State during the month of April. Cold periods occurred on the 16th and 17th and from the 22d to the 25th, with severe freezing temperatures, greatly damaging vegetation, which had prematurely advanced during the warm weather of March and the first half of April.

In Wisconsin, the mild pleasant weather which prevailed during the month of March continued during the first half of April, but the latter half of April was very changeable. The mean temperature for the month was 4.4° above the normal, but the month seemed cooler than March. The temperature was generally above the freezing point until the 15th, when a change to cooler occurred, and on the 17th the temperatures were from 5° to 10° below freezing. Another and colder period occurred on the 22d and 24th, when the minimum temperatures were generally 10° to 12° below freezing, and at some stations were down to 20° below freezing. Following this last cold period the temperature rose rapidly, and the last 2 days of the month were exceedingly warm, the maximum temperature being 93° on the 29th at La Crosse. The high temperature during the last 2 days generally exceeded all previous records for the time of the year, and the minimum temperatures between the 22d and 24th were the lowest ever observed so late in April at most stations.

In Iowa, the mean temperature was 3.8° above the normal notwithstanding the fact that abnormally cold weather prevailed most of the time between the 15th and the 26th. A cold spell set in on the evening of the 14th, attended by moderate showers, changing to snow on the 15th, which continued over the larger part of the section until the 18th. The minimum temperatures on the 16th, 17th, and 18th were from 3° to 12° below the freezing point, and the amounts of snowfall ranged from a trace in the southern to over 5 inches at some of the stations in the northeastern counties. The freezing temperatures materially lessened the prospects of a fruit crop, as apple, cherry, and other fruit trees were in full bloom in the northern part of the State by the 10th of the month. The damage done, however, was small as compared with the damage resulting from the freeze of the 23d–24th, when the minimum temperatures were 10° to 12° below the freezing point in the southern counties. The maximum temperature on the 23d was below the freezing point in the northeastern counties and the minimum on that date was lower than ever before recorded during the last decade of April at many stations. The ground froze hard on the mornings of the 23d and 24th, and ice formed from one-half to 1 inch thick in tubs of standing water. Following this last cold period the temperature rose rapidly and the 28th and 29th were excessively warm, the maximum temperatures on those dates being 90° or higher over the western part of the section, and the maximum on the 28th was higher than ever before recorded during April over the western half of the State.

Although the mean temperature for that part of Missouri, within the Mississippi watershed, differed but little from the April normal, the month was unusual in both warm and cold periods. With the exception of the 5th and 6th, the mean temperature was almost continuously above the normal during the first 2 weeks. The first marked cold spell occurred on the 16th and continued over the 19th, with freezing temperatures on the 17th and 18th. Cool weather prevailed until the 23d when a decidedly cold, wet period set in which continued until the 26th. On the morning of the 24th minimum temperatures of 23° to 25° occurred, greatly damaging all vegetation. This unusually cold spell was followed by a phenomenally hot one, which began on the 27th and continued to the close of the month; the day temperatures on the 29th exceeded 90°, surpassing records of former years for the last decade of April. From the 16th to the 26th, inclusive, there was a large deficiency of temperature, but the first 15 and the last 5 days gave a marked excess, resulting in a monthly mean slightly above the normal.

In Indiana the first half of the month was unusually warm and very similar in character to the latter half of the preceding month. Cool weather set in about the middle of the month, and continued until the closing days, when a brief warm spell culminated in the highest temperatures for the month on the 29th. The cold was extraordinarily severe on the 23d and 24th, temperatures as low as 24° being general in this section of the State.

In Illinois the mean monthly temperature was 53.1°, or 1.9° above the normal. The highest monthly mean was 57.6° at Chester, and the lowest, 49.8° at Sycamore. The highest temperature reported was 92° at La Harpe on the 29th, and the lowest, 12° at Oregon, on the 24th. The unseasonably warm weather obtaining in March continued until April 15, when a sharp decline occurred, culminating in a freeze on the 23d and 24th, attended by a snowstorm, and resulting in the nearest complete destruction to fruits, gardens, and shade trees in the history of the Service.

The monthly mean temperature for the district, as shown by the records of 292 stations, was 50.5°, which is 3.8° above the normal. The highest monthly mean was 57.6° at Chester, Ill., and the lowest, 42.6° at Grafton, N. Dak. The highest temperature recorded was 97° at Webster City, Iowa, on the 29th, and the lowest, 9° at McKinney, N. Dak., on the 23d.

PRECIPITATION.

The precipitation was generally below the normal, but an excess occurred in portions of Minnesota, Wisconsin, eastern Iowa, Illinois, and Indiana. In that portion of North Dakota within this district, the precipitation was nearly normal and it was quite evenly distributed geographically. The heaviest occurred in the northeastern portion of the State, in the upper Red River Valley. A considerable portion of this precipitation resulted from heavy snows, stations in that vicinity reporting from 18 to 19.5 inches. Pembina reported both the largest amount of precipitation and the largest amount of snowfall, the former being 3.41 and the latter 19.5 inches. The month opened with fair weather, which continued until the close of the 12th, except scattered showers on the 3d and 4th. From the 13th to the 18th, inclusive, precipitation, a considerable portion of which was in the form of snow, occurred in quite generous

amounts. Fair weather generally prevailed from the 19th to the 28th, inclusive, and showers occurred on the last 2 days. The average number of days with .01 inch or more of precipitation was 5.

In Minnesota the precipitation ranged from a little more than one-half inch in Ramsey, Hennepin, Dakota, and Rice counties to more than 4.00 inches in southeastern Douglas County. There was an excess of precipitation in most of the western and northern counties, and a deficiency in the eastern and southern counties. The deficiency from Hennepin and Ramsey counties southward to the Iowa line was about 2 inches. Most of the monthly precipitation occurred from the 14th to the 18th, but there was quite general precipitation on the 4th and 22d. On the 16th and 17th there was a general and heavy fall of snow. The average monthly snowfall was 4.5 inches.

In Wisconsin the precipitation was abundant and well distributed in the central and eastern portions, but was light in the northwestern section. In the Wisconsin Valley the precipitation was about twice the normal amount. This was very favorable for the water-power companies located along that river, as at the beginning of the month the river was very low. In the northwestern section the total fall was generally less than one-half the normal amount and rain is badly needed in that portion of the State. During the night of the 22-23d a severe blizzard set in and continued throughout the 23d, the total snowfall ranging from 4 to 8 inches or more, except in the extreme northwestern portion of the section. This heavy fall of snow exceeded all previous records for the month. The storm interrupted traffic to a considerable extent.

The average precipitation for Iowa was 1.35 inch below the normal and was unevenly distributed; the eastern third of the State receiving the largest amounts while a few localities in the north-central counties received less than one-fourth of an inch. Much of the precipitation was in the form of snow or snow mixed with rain during the storms of the 15-18th and 22d-24th.

In Missouri the total precipitation, as a rule, was below the normal. The wet periods were from the 2d to the 6th, 14th to the 18th, and 23d to the 26th. On the 16th and 17th and during the last period, especially on the 24th and 25th, much snow fell. In the northern part snow remained on the ground for several hours, ranging in depth from 1 to over 4 inches.

In Indiana the early part of the month was comparatively dry and very favorable for the advancement of all outdoor work. Showers occurred from the 3d to the 6th and on the 11th and 12th, but were mostly light in character. From the 15th to the end of the month, rain or snow fell every day except on the 20th, 21st, 28th, and 29th, the amounts being sufficiently heavy to retard the progress of farm and other outdoor work, and combined with the prevailing cold weather, greatly hindered the growth of vegetation. During this period snow fell to a considerable depth. In some localities it amounted to 4 inches or more, the greatest amount reported being 7.3 inches, but it remained on the ground only a short time.

The average precipitation for Illinois was 3.47 inches, or .22 inch above the normal. The greatest monthly amount, 6.78 inches, occurred at Cairo, which was the greatest at that station for April in 39 years with 2 exceptions; the least monthly amount 1.87 inch, occurred at St. Peter. The greatest amount in any 24 consecutive hours was 2.03 inches at Cairo on the 15-16th. The average snowfall was 4.0 inches, ranging from a trace to 11.3 inches. The average number of rainy days was 13; clear days, 12; partly cloudy, 6; cloudy, 12. Bright sunshine 54 per cent, or about 4 per cent below the normal for April.

The average precipitation for the District, as shown by the records of 303 stations, was 2.31 inches, which is 0.32 inch below the normal. The greatest amount, 6.78 inches occurred at Cairo, Ill., and the least, 0.10 inch at Webster City, Iowa. The greatest amount in 24 hours, 2.73 inches, occurred at Gorin, Mo., on the 5th. The average depth of unmelted snowfall was 4.6 inches; the greatest depth was 19.5 inches at Pembina, N. Dak., and none occurred at McKinney and Pratt, N. Dak.

SUNSHINE AND CLOUDINESS.

The average number of clear days was 13; partly cloudy, 7; and cloudy, 10. The duration of sunshine was about normal.

WIND.

Northwest winds prevailed. The highest velocity reported was 54 miles per hour from the southwest on the 14th, at Cairo, Ill.

MISCELLANEOUS.

The warm, dry weather during March and the first half of April enabled farmers to finish their spring seeding and the preparation of the ground for corn planting at a much earlier date than usual. It also forced the growth of vegetation to an unusual degree; trees were in full foliage nearly to the northern part of the district by the middle of April, and all fruit trees were in full blossom as far north as central Minnesota and Wisconsin. Considerable corn and potatoes were planted during the second week of the month in all parts of Iowa and Illinois, and spring sown grain was up over the middle and southern sections before the severe freezing temperatures which spread over the district between the 15th and 18th, and which resulted so disastrously to the fruits and early garden truck. Much of the fruit that escaped the freeze and some of the later varieties which came into bloom the following week were frozen during the cold spell between the 23d-25th. Not only the blossoms on fruit trees were killed, but the foliage and new growth on all trees were frozen and had fallen off by the end of the month, leaving the trees almost as bare as in late autumn.

Mr. John West James, cooperative observer at Riley, Ill., writes:

> At the end of the winter there was practically no frost in the ground; the unusually warm weather the last week in March, and the unprecedented high mean temperature for so early in the spring, brought the earliest fruit bloom on record. Some damage was done by frost on April 17 and 18; then on the night of April 23 the temperature fell to 16°, the lowest on record so late in the spring for 50 years, destroying not only the fruit bloom but also the leaves of pear, ash, maple, black walnut, and oak trees, and nearly destroyed lilac bloom. I never before saw such wholesale destruction by frost so late in the spring. Since warmer weather came on, I have seen what looks like fresh bloom on some hardy apple trees, but whether we will have a few apples, or the crop is utterly destroyed, can not be told at this time.

The Secretary of the Iowa State Horticultural Society, in his monthly report showing the condition of fruit on May 1, says:

> The average for May is only 9 per cent of a full crop. This is the lowest percentage ever estimated for May 1, on the condition of the crops in this State. The bloom on trees was three weeks in advance of normal; two weeks earlier than any record we have since the society was organized.

The heavy snow over the northern half of the district afforded protection to small grain, and although grain was in many localities frozen to the ground, no material damage was done except to check its growth.

A small tornado struck the northwestern portion of the city of Des Moines at 11:15 p. m., April 3, doing considerable damage to several dwellings and small out buildings. The storm struck and unroofed the residence of E. A. Paul, No. 4106 Kingman Boulevard, then passed north of east, diagonally across the street where it unroofed the residence of Charles Barchaus, No. 4003 Kingman Boulevard. The storm track was very narrow as buildings on the adjacent lots at either side of Mr. Paul's house were not injured, and the path of destructive violence was only about 400 feet long. There was, however, some slight damage done to trees and a few small outbuildings on the north side of the main track of the storm. It was preceded by the typical roar of a tornado and was attended by terrific thunder and vivid lightning. No one was injured and the damage done was estimated to be less than $5,000.

The Section Director at Springfield, Ill., reports:

> On Friday, April 15, between 3 and 4 o'clock, p. m., a thunderstorm of destructive violence passed over Madison, Macoupin, and Montgomery

counties. The storm came from the southwest. Its path of destruction was about one-half a mile wide and its most notable characteristic was the enormous hailstones that fell at Hillsboro and vicinity. Much property was destroyed by high winds, and the damage by hail at Hillsboro was extensive.

The St. Louis, Mo., and Hillsboro, Ill., newspapers claim that many of the hailstones which fell at Hillsboro were as large as a goose egg, and substantiate the statement by the reproduction of photographs showing many of the larger stones.

The stages of all the rivers in the district were below the normal for the season of the year.

DRAINAGE AND ENGINEERING NOTES.

The party making the survey of the Des Moines River, from Keokuk to Des Moines, Iowa, in charge of Mr. A. O Rowse, United States Army Engineer, have run a transit line and levels as a base for the complete survey, a distance of 120 miles, during the month of April. This part of the work will be completed about May 7, after which topographical and hydrographical work will be taken up.

A drainage survey of the Des Moines River will be made during the coming summer by the Drainage Investigation Service of the United States Department of Agriculture, from Humboldt, Iowa, to the north State line. Mr. O. G. Baxter, Drainage Engineer of the Department, will be in charge of the party to make the survey and the work will begin about May 12.

Mr. George D. Dobson, engineer for the Iowa State Drainage, Waterways and Conservation Commission, is making an investigation of the Boone River, from Webster City, Iowa, to the Des Moines River, to determine the possibilities of developing water power, and also of preventing excessive floods by means of storage reservoirs. This stream has been selected by the Commission as typical of the Iowa streams, and it is hoped by the study of this river to point out to the next legislature the value of similar investigation of all the principal rivers in the State.

The Local Forecaster at Milwaukee, Wis., reports that the water-power question is attracting a great deal of attention in that State and that considerable development work is being done. A company located at Wausau is expending $300,000 in building and maintaining storage reservoirs in the upper waters of the Wisconsin River. Power plants are also being constructed, or have recently been constructed, on the lower Wisconsin River, the Chippewa River, the Flambeau River, and others.

TABLE 1.—*Climatological data for April, 1910. District No. 5, Upper Mississippi Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
North Dakota.																				
Amenia	Cass	954	12	46.6	+ 4.8	96	27	12	17	53	1.46	− 0.67	0.56	.....	3	16	6	8	nw.	C. E. Wood.
Bottineau	Bottineau	1,638	14	45.8	+ 6.7	86	26	15	23	53	1.34	+ 0.86	0.38	.....	5	15	5	10	se.	J. A. Kemp.
Cando	Towner	1,488	8	46.6	+ 7.9	85	27	13	16	65	1.02	+ 0.42	0.32	.....	4	17	6	7	n.	E. T. Judd.
Crosby	Williams	.....	3	48.0	.....	90	20	16	22	47	1.38	.....	0.48	T.	5	23	1	6	nw.	H. C. Kaschau.
Devils Lake	Ramsey	1,482	4	44.7	+ 6.5	84	27	14	16	50	1.22	− 0.81	0.60	3.5	5	13	10	7	n.	U. S. Weather Bureau.
Donnybrook	Ward	1,760	10	45.5[1]	.....	91[1]	20	14[m]	16	56[m]	0.75	.....	0.75	.....	1	.....	.....	.....	nw.	C. J. De Vore.
Dunseith	Rolette	.....	12	46.8	+ 6.7	86	26	13	23	55	0.99	+ 0.34	0.35	.....	5	21	5	4	n.	L. H. Trowbridge.
Edmore	Ramsey	1,534	4	48.1	.....	90	27	12	16	48	1.26	.....	0.46	3.0	5	16	11	3	n.	H. R. Aslakson.
Forman	Sargent	1,249	15	51.6	+ 8.5	89	27	18	16†	49	1.38	− 0.97	0.71	6.7	2	16	6	8	nw	A. Maltby.
Grafton	Walsh	827	12	42.6	+ 3.4	84	24	12	1†	51	1.90	+ 0.42	1.00	18.0	3	10	14	6	n.	H. La Moure.
Granville	McHenry	1,504	3	48.0	.....	90	26†	15	16	55	1.49	.....	0.62	0.5	5	16	7	7	nw.	W. A. Christiansen.
Hannah	Cavalier	1,568	4	43.8	.....	83	26	9	23	45	1.40	.....	0.57	3.0	5	15	5	10	nw.	J. Moffatt.
Hansboro	Towner	.....	2	43.6	.....	77	25†	12	23	48	1.54	.....	0.65	1.2	8	18	2	10	nw.	Geo. Dale.
Hillsboro	Traill	901	4	47.8	.....	83	27	16	16	44	2.09	.....	0.76	.....	7	19	5	6	n.	M. H. Norman.
Lakota	Nelson	1,519	3	43.8	.....	82	13†	13	16	48	2.29	.....	0.66	8.0	7	15	10	5	nw.	C. R. Pettes.
Langdon	Cavalier	1,615	14	43.5	.....	85	26	12	16	51	1.60	.....	0.97	.....	5	18	0	12	w.	J. Woolner.
Larimore	Grand Forks	1,134	14	42.8	+ 2.9	82	13†	14	16	53	1.31	− 0.15	0.28	3.9	6	7	16	7	n.	S. R. Britton.
Lisbon	Ransom	1,091	5	47.2	.....	90	27	17	16	54	1.38	.....	0.60	12.2	5	16	6	8	nw.	H. K. Adams.
McKinney	Ward	1,640	15	47.0	+ 6.6	91	20†	9	23	59	1.00	+ 0.13	0.54	0.0	4	11	13	6	nw.	N. P. Swenson.
Manfred	Wells	1,605	8	47.6	.....	90	27	13	23	50	1.05	.....	0.65	1.5	4	18	5	7	nw.	P. B. Anderson.
Mayville	Traill	975	14	48.7	+ 5.7	81	26	11	15	40	1.91	+ 0.19	0.80	8.0	4	23	4	3	nw.	M. N. Pope
Minot	Ward	1,557	11	49.2	+ 7.8	91	27	18	23	59	1.88	+ 0.49	0.89	.....	7	22	2	6	n.	J. J. Bates.
Minto	Walsh	820	16	46.0[a]	+ 5.5	85	26	15[a]	16	47[a]	1.33	− 0.33	0.60	.....	6	9	13	8	s.	S. S. Marsh.
Oriska	Barnes	1,270	4	50.5[c]	.....	91[c]	27	15[c]	18	49[c]	0.55	.....	0.30	.....	3	.....	.....	.....	nw.	W. E. Williams.
Park River	Walsh	998	6	4.55	.....	86	26	15	16	59	1.06	.....	0.52	.....	5	15	11	4	nw.	A. Heyward.
Pembina	Pembina	789	11	4.32	+ 4.8	79	28	12	16	44	3.41	+ 2.19	1.10	19.5	9	14	6	10	nw.	C. W. Shumaker.
Portal	Ward	1,954	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. S. Davis.
Power	Richland	1,020	17	45.6	+ 3.8	91	27	13	16†	53	1.80	− 0.04	1.00	5.0	5	17	7	6	nw.	J. A. Power.
Pratt	McHenry	.....	5	47.3	.....	91	26	15	23	57	1.66	.....	0.95	0.0	4	19	5	6	nw.	C. H. Butts.
University	Grand Forks	830	18	46.4[a]	+ 4.8	83	26	16[a]	16	46[a]	0.48	− 1.76	0.28	2.0	3	.....	.....	.....	ne.	W. R. Holgate.
Wahpeton	Richland	962	18	45.8	+ 1.1	88	27	14	16	52	1.63	− 0.66	0.75	6.0	2	15	1	14	nw.	E. G. Burch.
Walhalla	Pembina	966	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. H. Lee.
Westhope	Bottineau	.....	3	46.8	.....	85	20†	15	16	55	1.77	.....	0.77	.....	5	21	0	9	nw.	J. D. Currie.
Willow City	....do	1,471	16	48.2[a]	+ 8.3	88	26	12[a]	22	55[a]	1.25	+ 0.39	0.85	T.	3	16	7	7	nw.	M. A. Ostby.
Minnesota.																				
Albert Lea	Freeborn	1,229	20	53.0	+ 7.8	94	28	21	17	49	0.70	− 1.89	0.20	7.0	4	13	12	5	nw.	Edward Carey.
Alexandria	Douglas	1,391	16	46.8	+ 5.8	85	27	15	16	43	3.03	+ 0.87	1.70	5.1	6	13	5	12	nw.	P. O. Unumb.
Angus	Polk	870	8	44.9	.....	82	13	18	23	47	0.98	.....	0.31	3.0	5	14	9	7	n.	John Nadvornik.
Bagley	Clearwater	.....	4	45.2	.....	81	10	16	19	51	2.23	.....	0.91	3.5	6	14	10	6	nw.	Jens Nelson.
Baudette	Beltrami	1,084	1	45.0	.....	79	13	11	22	46	1.78	.....	0.56	2.0	5	16	6	8	ne.	Frans W. Schmidt.
Beardsley	Bigstone	1,090	17	.....	.....	.....	.....	.....	.....	.....	1.93[a]	− 0.35	0.97[a]	5.0[a]	5[a]	15[a]	7[a]	7[a]	nw.	Roy A. Smith.
Beaulieu	Mahnomen	1,200	8	46.4[a]	.....	84[a]	10†	16[a]	16	46[a]	1.86	.....	0.70	4.0	7	16	5	9	nw.	Dr. L. A. Parkinson.
Bird Island	Renville	1,039	20	50.0	+ 5.4	89	28	20	16	48	1.00	− 1.22	0.57	5.0	4	15	6	9	nw.	Dr. F. L. Puffer.
Caledonia	Houston	1,179	17	49.7	+ 4.2	87	29	20	24	40	2.26	− 0.95	0.50	11.0	8	14	4	12	ne.	W. D. Belden.
Campbell	Wilkin	984	...	45.6	.....	89	27	16	17	52	2.07	.....	0.61	7.0	6	19	1	10	nw.	J. T. Neiseas.
Cass Lake	Cass	1,300	4	.....	.....	.....	.....	.....	.....	.....	2.15	.....	0.60	5.0	6	.....	.....	.....	.....	C. W. Burns.
Collegeville	Stearns	1,282	17	50.2	+ 5.7	86	27	20	16	50	1.64	− 0.40	0.47	3.0	8	17	4	9	nw.	Fridolin Tembreul.
Crookston	Polk	863	20	44.1	+ 2.4	81	10	16	16	43	2.18	+ 0.31	0.85	T.	7	16	5	9	s.	A. G. Andersen.
Detroit	Becker	1,364	14	43.8	+ 4.6	86	27	15	16†	49	2.23	+ 0.55	0.70	2.0	6	19	2	9	nw.	George W. Peoples.
Fairmont (near)	Martin	1,240	23	50.2	+ 5.3	86	28	21	17	35	0.65	− 2.21	0.30	5.0	4	14	11	5	nw.	W. F. Wheriand.
Faribault	Rice	1,003	13	48.8	+ 4.3	88	28	18	23	42	0.58	− 1.11	0.19	4.9	7	14	9	7	nw.	Dr. A. R. T. Wylie.
Farmington	Dakota	902	22	51.0	+ 6.2	89	28	19	23	49	0.55	− 2.00	0.20	3.0	5	12	5	13	s.	D. F. Akin.
Fergus Falls	Ottertail	1,210	18	48.6	+ 5.7	86	27	16	16	42	2.14	+ 0.08	1.24	7.3	6	17	6	7	nw.	Chas. E. Kissenger.
Fort Ripley	Crow Wing	1,136	4	47.4	.....	86	27	20	16†	48	1.64	− 0.91	1.18	3.5	5	16	4	10	n.	J. J. Tucker.
Fosston	Polk	1,289	1	44.4	.....	81	10†	11	16	52	1.58	.....	0.57	3.0	7	16	6	8	n.	O. N. Hem.
Glencoe	McLeod	1,000	14	51.5	+ 6.9	87	28	21	17	48	1.36	− 0.70	0.65	5.5	4	16	10	4	nw.	C. G. Selvig.
Grand Meadow	Mower	1,338	23	50.6	+ 6.4	89	28†	17	23	41	0.43	− 2.00	0.13	4.5	7	6	14	10	n.	C. F. Greening.
Hallock	Kittson	815	11	44.4	+ 4.4	84	13	15	16	47	1.88	+ 0.86	0.75	6.0	6	20	2	8	n.	D. A. Robertson.
Halstad	Norman	870	4	44.7	.....	83	10†	16	16	54	1.25	.....	0.38	.....	7	22	1	7	nw.	Aaron G. Holstrom.
Hinckley	Pine	1,050	5	48.8	.....	82	9	18	23	43	0.52	.....	0.41	3.0	2	5	18	7	s.	W. R. Newman.
International Falls	Koochiching	1,112	2	45.6	.....	77	13	16	23	47	2.38	.....	1.13	4.0	7	17	9	4	ne.	Rees Roe.
Kelliher	Beltrami	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Gilmour.
Lake Crystal	Blue Earth	.....	3	51.0	.....	89	28	22	17	38	0.32	.....	0.24	.....	2	15	7	8	nw.	W. P. Cobb.
Leech Lake Dam	Cass	1,301	22	45.4	+ 5.9	79	10	19	23	46	2.22	+ 0.76	0.55	2.8	7	5	17	8	se.	Hans Olson.
Little Falls	Morrison	1,117	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Maurice Coleman.
Little Fork	Koochiching	.....	.....	.....	.....	78	3†	.....	.....	.....	2.73	.....	1.34	.....	7	14	9	7	.....	O. C. Olson.
Long Prairie	Todd	1,299	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. M. Sheets.
Lynd (2)	Lyon	1,175	18	50.2	+ 5.7	95	28	19	17	46	1.69	− 1.25	1.01	3.5	4	18	3	9	nw.	J. W. Rouse.
Mankato	Blue Earth	747	11	.....	.....	.....	.....	.....	.....	.....	0.68	− 1.60	0.42	7.0	3	15	7	8	sw.	Sadie H. Blake.
Mapleplain	Hennepin	1,023	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. W. Richards.
Milaca	Millelacs	1,072	13	47.4[c]	.....	84[c]	27	21[c]	16†	43[c]	.....	.....	.....	.....	.....	.....	8[c]	10[c]	7[c]	se.	C. H. Foss.
Milan	Chippewa	955	16	49.4	+ 4.4	89	27	18	16	44	2.30	+ 0.25	0.76	4.0	7	5	18	7	nw.	O. K. Opjorden.
Minneapolis	Hennepin	918	19	50.6	+ 4.8	85	27	19	23	43	0.64	− 1.80	0.31	4.9	7	14	6	10	n.	U. S. Weather Bureau.
Montevideo	Chippewa	900	20	50.6	+ 5.4	92	28	18	16	46	2.75	+ 0.25	1.30	6.0	5	14	12	4	nw.	Lloyd G. Moyer.
Moorhead	Clay	935	29	46.5	+ 5.1	92	27	16	16	52	1.92	− 0.41	1.00	7.7	6	17	6	7	nw.	U. S. Weather Bureau.
Mora	Kanabec	.....	5	48.2	.....	82	10	17	23	46	0.71	.....	0.40	4.2	6	18	8	4	s.	Hans Peterson.
Morris	Stevens	1,170	25	47.8	+ 3.7	89	27	17	16	42	2.33	− 0.13	1.27	8.0	4	21	1	8	s.	D. T. Wheaton.
New London	Kandiyohi	1,215	16	46.5	+ 3.4	88	27	14	16	54	2.06	− 0.35	0.98	4.0	3	15	15	0	se.	Harold Swenson.
New Richland	Waseca	1,180	16	51.2	+ 5.2	89	28	22	17	43	1.09	.....	0.45	4.0	5	14	11	5	nw.	N. O. Tyrholm.
New Ulm	Brown	791	30	51.5	+ 5.9	93	28	23	16†	43	1.05	− 0.81	0.45	5.2	4	15	3	12	s.	Andrew J. Eckstein.
Osakis	Douglas	1,343	3	48.2	.....	85	27	17	16	47	4.06	.....	2.54	5.2	7	17	7	6	sw.	J. B. Johnson.
Park Rapids	Hubbard	1,426	20	46.2	+ 6.6	87	27	18	16	48	2.79	+ 0.48	1.02	7.2	6	14	4	12	se.	Dr. P. A. Walling.
Pine River Dam	Crow Wing	1,251	23	47.6	+ 7.3	78	3	18	23	48	1.98	− 0.35	0.85	T.	4	15	7	8	n.	Neil McKay.
Pokegama Falls	Itasca	1,280	23	46.0	+ 7.5	76	11†	15	23	48	1.49	− 0.59	0.59	0.5	8	15	8	7	se.	Arthur L. Mampel.
Red Lake	Beltrami	1,152	2	45.4	.....	79	13	19	22	44	2.51	.....	1.24	2.0	5	9	13	8	n.	A. C. Goddard.
Red Wing	Goodhue	680	14	.....	.....	.....	.....	.....	.....	.....	0.86	− 1.97	0.36	6.0	6	13	4	13	nw.	Louis Bach.
Redwood Falls	Redwood	1,050	3	52.2	.....	94	28	21	16†	43	1.03	− 1.26	0.50	5.0	3	17	7	6	nw.	N. B. Anderson.
Reeds Landing	Wabasha	681	15	.....	.....	.....	.....	.....	.....	.....	0.72	− 1.24	0.24	4.0	7	14	2	14	nw.	John Deschneau.
Rochester	Olmsted	991	6	49.1	.....	88	28	18	17	48	0.77	.....	0.34	3.0	4	10	8	12	s.	S. R. Case.
Roseau	Roseau	1,040	3	45.0	.....	80	13	15	22	43	2.27	.....	0.61	.....	8	22	3	5	nw.	A. Waag.
St. Charles	Winona	850	19	49.4	+ 4.5	91	28	16	17	45	0.84	− 1.87	0.33	5.0	8	16	5	9	se.	S. W. Gleason.
St. Cloud	Sherburne	1,020	32	50.4	+ 6.6	86	27	19	16	50	1.52	− 0.89	0.70	2.3	6	15	6	9	nw.	Jos. H. Capser.
St. Paul	Ramsey	837	39	51.0	+ 5.3	86	27	20	23	41	0.59	− 1.74	0.26	4.5	5	13	10	7	ne.	U. S. Weather Bureau.
St. Peter	Nicollet	825	17	52.5	+ 6.3	92	28	23	17	47	0.73	− 1.21	0.25	5.5	4	16	8	6	nw.	Chas. C. Cavanaugh.
Sandy Lake Dam	Aitkin	1,234	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Engineer Corps.
State Sanatorium	Cass	.....	3	47.8	.....	81	10†	20	22	40	2.90	.....	1.24	4.5	5	17	2	11	ne.	Walter J. Marcley.
Stillwater	Washington	694	5	.....	.....	.....	.....	.....	.....	.....	0.58	.....	0.26	4.4	4	12	7	11	sw.	Oscar Ostrom.

TABLE 1.—*Climatological data for April, 1910. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Minnesota—Cont'd.																				
Taylors Falls	Chisago	759	3	51.7	.....	82	27	20	23	43	0.71	.....	0.29	5.7	4	13	12	5	s.	Mpls. Gen. Elec. Co.
Warroad	Roseau	1,069	1	43.5	.....	77	13	15	22	43	1.51	.....	0.40	.....	6	19	0	11	n.	John H. Sawyer.
West Concord	Dodge	1,232	1	50.2	.....	87	28	18	23	41	1.60	.....	0.50	11.0	6	11	10	9	nw.	H. H. Orcutt.
Willow River	Pine	1,046	12																	J. A. Brandt.
Windom	Cottonwood	1,336	4	51.4	.....	94	28	20	17†	46	0.77	.....	0.30	3.0	4	14	9	7	n.	Taber C. Richmond.
Winnebago	Faribault	1,100	11	52.4[a]	+ 7.4	95[a]	28	22	17	43[a]	0.69	− 1.40	0.25	6.0	5	13	7	10	nw.	H. H. Haight.
Winnibigoshish	Itasca	1,300	22	47.4	+ 8.3	79	10	18	23	41	2.10	+ 0.30	0.88	4.5	7	19	5	6	se.	John Duncan.
Winona	Winona	700	15	53.5	+ 7.1	91	28	21	17†	45	1.20	− 1.52	0.28	7.0	9	12	9	9	nw.	Perry C. Myers.
Worthington	Nobles	979	15	48.2	+ 3.3	85	28	17	24	46	0.88	− 1.44	0.65	4.0	4	16	6	8	n.	W. I. Carpenter
Zumbrota	Goodhue	917	15	50.2[d]	+ 4.7	88[b]	28	22[d]	17	44[d]	0.40[b]	.....	0.30[b]	3.0[b]	2[b]	14[b]	9[b]	5[b]	nw.	W. C. Rowell.
South Dakota.																				
Milbank	Grant	1,148	18	47.4	+ 3.5	89	27	16	19	48	2.12	0.00	0.96	3.2	6	19	1	10	nw.	I. T. Patridge.
Wisconsin.																				
Antigo	Langlade	1,489	16	47.0	+ 3.9	73	15	23	12	39						14	5	11	se.	Elton C. Larzelere.
Barron	Barron	1,115	18	46.8	+ 4.3	80	29	18	23	44	0.90	− 1.26	0.60	9.0	3	16	10	4	n.	Wm. A. Kent.
Beloit	Rock	750	23			81	29	19	24	...	3.64	+ 0.93	0.50	4.0	11	23	1	6	s.	Smith Observatory.
Brodhead	Green	812	12	51.0	+ 3.7	86	29	16	24	45	4.07	+ 1.34	0.80	10.5	13	15	9	6	nw.	Hecktore D. Kirkpatrick
Burnett	Dodge	880	6	48.2	.....	79	29	19	24	37	3.48	.....	0.66	12.0	13	13	5	12	nw.	Geo. W. Smith.
Delavan	Walworth	920	17	49.7	+ 3.4	84	29	15	24	39	3.24	+ 0.58	0.67	6.0	15	11	5	14	s.	Elwood S. Austin.
Dodgeville	Iowa	1,116	11																	Geo. W. Butler
Downing	Dunn	963	8	47.9[a]	.....	82[a]	29†	18	23	49[a]	0.80	.....	0.40	8.0	3	7	4	19	w.	Eugene F. Stoddard.
Eau Claire	Eau Claire	800	19	51.5	+ 3.7	87	29	20	23†	43	1.29	− 1.18	0.40	8.4	7	13	9	8	n.	Robert D. Whitford
Ellsworth	Pierce	1,068	2																	Henry G. Wood.
Glidden	Ashland	1,519	18																	George Sell.
Grand Rapids	Wood	1,021	11	47.9	+ 3.4	82	29	20	23†	42	4.14	+ 1.89	0.65	3.8	12	11	7	12	ne.	Willis B. Raymond.
Grantsburg	Burnett	1,095	19	48.8	+ 5.6	83	10	15	23	49	0.75	− 1.81	0.33	9.0	3	10	10	10	ne.	Theodore Olsen.
Hancock	Waushara	1,091	18	49.8	+ 5.0	84	29	20	23	43	4.67	+ 2.39	1.30	4.0	11	11	7	12	nw.	Frederick B. Hamilton.
Hatfield	Jackson	973	15	50.9	+ 3.3	87	29	19	23	43	3.85	+ 1.35	0.90	8.0	11	14	5	11	s.	Walter S. Woods.
Hayward	Sawyer	1,197	19	47.6	+ 5.5	77	10	16	23	42	1.10	− 0.77	0.60	6.5	3	8	11	11	n.	William E. Swain.
Hillsboro	Vernon	1,000	19	48.6	+ 3.8	86	29	17	23	45	4.39	+ 1.60	0.97	8.0	9	13	8	9	sw.	Emil V. Wernick.
Koepenick	Langlade	1,683	20	44.4	+ 3.1	70	14†	16	12	43	4.23	+ 1.61	1.05	15.0	9	.....			n.	Edward S. Koepenick.
La Crosse	La Crosse	714	38	51.0	+ 3.7	93	29	20	23	42	2.23	− 0.06	0.63	12.4	11	9	8	13	nw.	U. S. Weather Bureau.
Lake Mills	Jefferson	897	19	48.2	+ 2.2	82	29	15	24	42	3.99	+ 1.35	1.10	12.6	14	9	9	12	n.	S. Newton Dexter Smith
Lancaster	Grant	1,070	20	51.3	+ 4.5	86	29	19	23	37	4.12	+ 1.38	1.50	6.5	10	16	5	9	nw.	Edward Pollock.
Long Lake	Oneida	1,592	2	44.5	.....	74	15†	11	12	49	2.02	.....	0.66	5.0	11	14	8	8	n.	Louie Frank.
Madison	Dane	974	32	49.0	+ 4.5	83	29	19	23	35	4.56	+ 2.18	1.18	8.4	15	10	9	11	s.	U. S. Weather Bureau.
Mather	Juneau	962	6	48.2	.....	86	29	19	24	43	4.01	.....	0.85	11.0	10	9	9	12	e.	Frank Evans.
Mauston	....do	882	14	51.1	+ 5.9	87	29	19	23	46	4.69	+ 2.71	1.35	4.0	10	11	7	12	nw.	Eugene L. Hitchcock.
Meadow Valley	....do	974	19	49.8	+ 4.6	86	29	20	23	46	3.68	+ 1.34	1.40	7.0	9	6	16	8	se.	Charles H. Johnson.
Medford	Taylor	1,420	19	47.6	+ 5.2	76	27	18	22	41	4.45	+ 2.24	.....	2.0	7	20	2	8	n.	William Zeit.
Merrill	Lincoln	1,267	4	46.6	.....	78	28	20	23†	43	3.90	.....	1.12	8.0	9	17	6	7	n.	Frank M. McElroy.
Minocqua	Vilas	1,604	6	45.8	.....	78	29	18	23	45	1.35	.....	0.60	2.0	5	14	6	10	n.	Benjamin W. Applebee.
Mondovi	Buffalo	738	2	51.2	.....	85	29	19	23	45	1.10	.....	0.30	6.5	9	9	14	7	nw.	Dr. Charles Hebard.
Mount Horeb	Dane	1,226	6	49.6	.....	83	29	16	24	42	5.89	.....	1.25	7.5	15	14	6	10	s.	W. M. Lewis.
Muscoda	Grant	666	1	50.9	.....	89	29	22	24	50	4.92	.....	1.64	3.9	11	11	6	13	ne.	Henry Eckstein.
Neillsville	Clark	996	21	51.3	+ 6.9	88	8	20	23†	49	4.10	+ 1.63	1.88	10.0	9	14	0	16	nw.	William Heaslett.
New Richmond	St. Croix	990	5	50.8	.....	88	9	17	23	53	1.41	.....	0.80	10.5	4	15	10	5	nw.	Franc A. R. Van Meter.
Osceola	Polk	806	19	49.7	+ 6.1	86	27	19	23	52	0.69	− 1.56	0.33	5.5	4	19	8	3	e.	Charles W. Staples.
Portage	Columbia	809	14	50.8	+ 4.0	85	29	19	23	39	5.01	+ 2.46	1.70	7.0	11	14	5	11	ne.	James Clear.
Prairie du Chien	Crawford	690	23	51.3	+ 2.6	92	29	21	24	43	3.34	+ 0.99	1.18	3.5	10	11	4	15	s.	Jas. A. Gillis.
Prentice	Price	1,551	12	44.3	+ 2.4	70	9†	12	23	42	1.87	0.00	0.54	2.5	7	11	7	12	s.	Joseph G. Lash.
Rhinelander	Oneida	1,550	4	46.8	.....	74	29	20	23†	40	2.82	.....	1.00	4.5	10	10	12	8	se.	John Lind.
Sauk City	Sauk	758	2																	Kilien Derleth.
Shullsburg	Lafayette	1,019	4	49.3	.....	83	29	15	24	40	5.16	.....	0.93	10.5	11	12	5	13	s.	Harrison B. Chamberlin.
Solon Springs	Douglas	1,083	4	44.8	.....	76	4†	17	23	47	1.10	.....	0.50	5.0	3	16	4	10	n.	John M. Sayles.
Spooner	Washburn	1,104	15	45.7	+ 2.9	79	10	17	23	45	0.82	− 1.73	0.50	6.0	4	20	6	4	n.	Horace A. Bresee.
Stanley	Chippewa	1,082	6	50.6	.....	82	29	18	23	39	1.53	.....	0.35	9.0	7	16	6	8	nw.	W. Humphrey Scott.
Stevens Point	Portage	1,113	17	48.7	+ 3.7	79	29	21	23	41	4.82	+ 2.49	2.90	5.0	9	11	3	16	se.	Garry E. Culver.
Valley Junction	Monroe	930	18	50.2	+ 5.2	87	29	21	23	42	5.31	+ 2.67	1.63	5.0	12	8	11	11	sw.	Frederick Muermann.
Viroqua	Vernon	1,412	19	51.7	+ 6.1	87	29	18	23	39	2.90	+ 0.21	1.10	5.0	11	12	8	10	se.	Henry E. Rogers.
Vudesare	Vilas	1,600	2	44.7	.....	74	14	19	23†	45	2.36	.....	0.90	6.0	5	17	6	7	n.	Louis L. Thomas.
Watertown	Jefferson	824	19	49.8	+ 4.6	82	29	18	24†	39	3.97	+ 1.39	1.20	15.7	15	11	8	11	se.	Charles J. Salick.
Waukesha	Waukesha	864	14	49.4	+ 3.5	83	29	19	24	38	3.91	+ 1.56	0.95	9.0	11	9	15	6	e.	Carroll College.
Wausau	Marathon	1,212	17	50.3	+ 7.4	73	30	24	23	37	3.88	+ 1.32	0.95	3.0	11	15	8	7	n.	George H. Halder.
Weyerhaeuser	Rusk	1,297	3	47.3	.....	80	29	18	23	47	1.14	.....	0.65	10.0	7	9	14	7	se.	Miss Etta Stiles.
Whitehall	Trempealeau	675	18	51.6	+ 5.0	87	29†	19	23	47	1.19	− 1 18	0.80	11.0	3	19	5	6	w.	Henry A. Towner.
Iowa.																				
Albia‖	Monroe	959	12	50.8	+ 1.2	89	29	21	24	37	2.02	− 0.81	0.90	2.0	11	14	5	11	sw.	J. I. Chenoweth.
Algona‖	Kossuth	1,213	36	52.2	+ 6.0	95	28	21	17	45	0.29	− 2.19	0.09	5.0	4	15	8	7	n.	Dr. F. T. Seeley.
Alta	Buena Vista	1,513	19	51.2	+ 4.5	95	28	19	17	47	1.05	− 1.98	0.35	4.5	6	14	11	5	n.	David E. Hadden.
Amana	Iowa	721	34	52.3	+ 3.7	88	29	23	24	36	2.62	− 0.29	1.15	3.4	13	14	7	9	nw.	C. Schadt.
Ames	Story	926	34	53.6	+ 4.5	95	29	20	17	50	0.50	− 2.17	0.20	1.0	4	11	10	9	s.	Iowa State College.
Baxter‖	Jasper	998	10	52.8	+ 4.0	92	29	19	17	39	2.25	− 0.62	1.49	2.5	13	13	9	8	sw.	W. R. Vandike.
Belleplaine	Benton	828	20	52.2	+ 3.3	90	29	22	24	43	1.69	− 1.62	0.60	8.0	8	15	5	10	w.	S. P. Van Dike.
Belmond	Wright	.....	.....	51.6	.....	93	28†	21	17	44	1.04	.....	0.61	3.0	8	5	18	7	w.	Geo. P. Hardwick.
Bloomfield‖	Davis	.....	3	53.3[b]	.....	91[b]	29	20[b]	23	41[b]	2.69	.....	1.12	.....	8	11	10	9	.....	C. R. Davis.
Bonaparte‖	Van Buren	.....	19	52.5	+ 2.3	89	29	23	24	37	3.09	− 0.26	1.32	4.1	14	.....	.....	.....	.....	B. R. Vale.
Boone	Boone	1,134	5	52.2	.....	93	29	20	17	42	0.84	.....	0.43	1.0	7	14	6	10	.....	Carl Fritz Henning.
Britt‖	Hancock	1,236	13	51.3	+ 5.6	92	28	20	17	45	0.91	− 1.30	0.75	1.7	5	15	6	9	s.	L. M. Goodman.
Buckingham	Tama	.....	10								1.75	− 0.32	1.06	T.	4	14	8	8	.....	W. A. Daniel.
Burlington	Des Moines	544	14	52.4	+ 0.9	90	29	22	24	37	4.86	+ 1.70	1.28	10.5	16	17	0	13	sw.	Max E. Poppe, jr.
Carroll	Carroll	1,265	20	50.2	+ 2.1	94	27	20	16†	49	0.20	− 3.00	0.10	1.0	2	12	9	9	nw.	Mrs. Jos. J. Wolfe.
Cedar Rapids	Linn	733	28	51.4	+ 1.7	90	29	24	24	38	2.51	− 0.23	1.40	2.0	9	17	2	11	w.	W. J. Greene.
Charles City	Floyd	1,015	19	50.2	+ 3.9	92	29	22	17	42	0.88	− 1.95	0.23	1.6	9	8	9	13	n.	U. S. Weather Bureau.
Clear Lake‖	Cerro Gordo	1,241	12	52.3	+ 5.3	84	27†	22	17	41	0.20	− 1.44	0.10	2.0	2	19	3	8	nw.	Oscar Stevens
Clinton	Clinton	593	43	52.6	+ 4.0	90	29	22	24	40	3.55	+ 0.54	0.75	2.5	11	12	5	13	nw.	Luke Roberts.
Columbus Junction‖	Louisa	595	9	53.8	.....	88	29	23	23†	36	3.04	− 0.26	1.00	4.5	10	16	5	9	nw.	J. B. Johnston.
Davenport	Scott	580	39	52.0	+ 1.8	87	29	22	23	34	3.69	+ 0.81	1.28	0.6	16	13	6	11	nw.	U. S. Weather Bureau.
Decorah	Winneshiek	875	17	51.3	+ 3.6	93	29	20	17†	42	2.56	+ 0.06	0.70	4.5	8	.....			.....	F. H. Baker.
Delaware	Delaware	1,083	19	52.0	+ 6.2	86	29	21	24	40	2.96	+ 0.18	0.90	4.4	11	15	4	11	sw.	William Ball.
Des Moines	Polk	861	32	53.2	+ 2.6	92	29	22	17	38	1.13	− 1.85	0.30	0.7	10	8	8	14	n.	U. S. Weather Bureau.
De Soto‖	Dallas	866	10	53.6	+ 3.9	94	29	21	17	48	1.62	− 1.16	1.32	0.5	5	13	5	12	nw.	R. D. Minard.
Dubuque	Dubuque	639	37	51.4	+ 2.5	87	29	22	23	35	3.40	+ 0.48	1.40	7.6	14	11	6	13	s.	U. S. Weather Bureau.
Earlham	Madison	.....	8	53.0	.....	91	29	24	17	44	2.23	− 1.43	1.68	3.0	8	14	7	9	nw.	George Phillips.
Elkader	Clayton	727	31	51.5	+ 3.5	92	29	21	23	46	3.16	+ 0.47	1.20	7.0	9	17	4	9	ne.	Chas. Reinecke.
Elma	Howard	.....	1	50.2	.....	91	29	20	17	43	1.61	.....	0.42	.....	12	14	7	9	nw.	H. A. Moore.
Estherville	Emmet	1,298	15	51.0	+ 4.7	93	28	20	17	45	0.95	− 1.26	0.33	4.5	4	17	0	13	nw.	A. O. Peterson.

TABLE 1—*Climatological data for April, 1910. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Iowa—Cont'd.																				
Fairfield	Jefferson		26	52.2[a]	+ 2.4	86	29	19[a]	23	35[a]	3.18	− 0.30	1.07	2.1	16	14	7	9	nw.	R. Monroe McKenzie.
Fayette‖	Fayette	1,003	20	50.7	+ 4.2	93	29	20	17†	43	3.03	+ 0.01	.....	8.3	10	15	5	10	nw.	R. Z. Latimer.
Forest City‖	Winnebago	1,226	16	51.5	+ 5.0	94	28	19	17	50	0.15	− 2.22	6.15	1.0	1	15	8	7	w.	J. A. Peters.
Fort Dodge	Webster	1,126	10	52.0	+ 4.6	95	28	21	24	49	0.35	− 2.82	0.10	2.0	4	17	0	13	n.	J. F. Monk.
Fort Madison	Lee	516	61	.....	.....	.....	.....	.....	.....	.....	3.19	+ 0.01	0.98	6.0	7	7	5	18	sw.	Miss L. A. McCready.
Gilman	Marshall	1,052	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. L. Wylie.
Grand Meadow	Clayton	1,180	19	51.3	+ 4.5	89	29	20	17†	37	2.91	− 0.06	1.00	8.2	11	12	8	10	nw.	F. L. Williams.
Greene	Butler		12	53.1	+ 5.0	95	29	22	17	44	0.84	− 1.39	0.37	3.5	5	5	13	12	s.	J. L. Cole.
Grinnell	Poweshiek	1,023	18	56.0	+ 5.7	92	29	28	17	36	2.75	− 0.63	0.90	1.2	9	13	10	7	w.	D. W. Brainard
Grundy Center‖	Grundy	976	19	52.8	+ 5.4	95	29	20	17	50	1.85	.....	1.25	1.5	5	13	6	11	nw.	J. B. Calderwood.
Guthrie Center‖	Guthrie	1,077	15	53.7	+ 4.4	93	28	22	17	49	0.81	− 1.93	0.30	1.5	6	15	10	5	nw.	D. G. Beardsley.
Hampton	Franklin	1,155	20	52.6	+ 5.3	93	28†	20	17	41	0.93	− 2.35	0.38	3.2	5	12	7	11	nw.	E. C. Grenelle.
Humboldt	Humboldt	1,095	22	53.4	+ 5.1	96	28	22	17	48	0.38	− 2.23	0.12	2.0	5	17	7	6	nw.	Henry S. Wells.
Independence‖	Buchanan	921	46	51.9	+ 2.5	88	29	20	17	41	1.47	− 0.91	0.69	3.0	5	16	2	12	nw.	George Donohoe.
Indianola	Warren	969	19	54.1[a]	+ 3.4	91[a]	29	23[a]	17	37[a]	0.56	− 2.84	0.28	0.6	8	3	12	15	nw.	John L. Tilton.
Iowa City	Johnson	683	50	50.0	+ 1.5	88	29	22	18	39	2.56	− 0.58	1.16	.....	11	15	3	12	se.	A. G. Smith.
Iowa Falls	Hardin	1,170	17	50.0	+ 3.3	93	29	19	17	48	1.72	− 1.16	0.62	2.0	7	15	3	12	nw.	J. B. Parmelee.
Jefferson‖	Greene		11	53.8	.....	95	28†	26	23	48	0.37	− 2.23	0.25	1.2	4	15	6	9	s.	G. W. Jackson.
Keokuk	Lee	547	39	54.4	+ 2.4	90	29	23	24	34	2.91	− 0.43	1.25	T.	12	10	10	10	nw.	U. S. Weather Bureau.
Keosauqua	Van Buren	644	18	51.4	− 0.2	89	29	24	24	42	3.25	− 0.44	1.83	7.8	10	6	11	13	.....	J. H. Landes.
Knoxville‖	Marion	920	15	54.7	+ 3.5	90	29	24	17	39	0.85	− 2.40	0.24	1.8	9	12	6	12	sw.	Casey & Belville.
Lacona	Warren		11	.....	.....	.....	.....	.....	.....	.....	1.95	− 1.01	0.54	4.0	10	7	19	4	.....	J. B. Alter.
Le Claire	Scott	576	10	.....	.....	.....	.....	.....	.....	.....	2.51	+ 0.14	0.50	4.7	11	.....	.....	.....	.....	Miss M. T. Disney.
Marshalltown	Marshall	947	18	50.8	+ 2.0	94	29	20	17	49	1.89	− 1.01	0.61	.....	10	17	3	10	nw.	Ralph B. Reasoner.
Mason City‖	Cerro Gordo	1,132	13	51.0	+ 3.3	91	28	20	17	43	0.31	− 2.34	0.14	1.4	5	16	5	9	nw.	J. S. Mills.
Mount Pleasant‖	Henry	729	29	53.0	+ 1.9	88	29	23	24	31	3.03	− 0.18	1.42	5.6	14	12	7	11	sw.	J. W. Edwards.
Muscatine	Muscatine		50	.....	.....	.....	.....	.....	.....	.....	2.40	− 1.01	0.90	3.0	8	.....	.....	.....	.....	William Molis
New Hampton‖	Chickasaw	1,169	13	51.4	+ 4.5	90	29	19	17	40	1.64	− 0.31	0.51	5.0	7	16	5	9	s.	A. F. Kemman.
Newton‖	Jasper	944	22	54.6	+ 6.2	92	29	23	17	38	1.12	− 2.21	0.45	0.2	6	13	10	7	s.	J. P. Beatty.
Northwood‖	Worth	1,222	14	50.9[1]	+ 4.4	90[b]	28	21[b]	17	39[1]	0.98	− 1.18	0.50	8.5	7	15	8	7	nw.	Chas. H. Dwelle.
Olin‖	Jones	760	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. M. Miles.
Osage	Mitchell	1,184	23	54.4	+ 9.0	91	28‖	20	17	40	0.35	− 2.10	0.25	4.5	2	14	8	8	nw.	A. D. Bundy.
Oskaloosa‖	Mahaska	843	34	53.2	+ 3.2	89	29	23	24	39	2.49	− 0.24	0.90	4.5	13	15	1	14	nw.	Joseph Boyd.
Ottumwa	Wapello	649	15	55.0	+ 3.0	92	29	24	24	40	2.52	− 0.63	1.16	1.2	12	7	8	15	s.	W. J. Mesmer.
Pella	Marion	877	8	53.2	.....	93	29	24	24	44	1.27	− 1.25	0.80	2.8	9	18	4	8	nw.	John H. Ver Steeg.
Perry‖	Dallas	975	9	53.8	.....	93	28‖	21	17	43	0.61	− 2.32	0.20	2.0	5	11	13	6	.....	J. A. Harvey.
Plover	Pocahontas	1,426	14	51.6	+ 5.0	96	28	20	17	51	0.22	− 1.88	0.10	2.0	4	20	8	2	nw.	J. S. Smith.
Pocahontas‖	....do	1,248	6	51.6	.....	94	28	22	17	44	0.23	.....	0.11	1.6	3	15	8	7	s.	F. E. Hronek.
Ridgeway‖	Winneshiek	1,215	12	52.2	+ 4.6	92	29	20	17†	41	3.52	+ 1.18	0.71	11.0	11	15	8	7	s.	Arthur Betts.
Rockwell City‖	Calhoun	.....	14	50.0	+ 3.0	96	28	21	17†	54	1.02	− 1.74	0.50	9.0	6	19	2	9	.....	C. M. Randall.
Sac City	Sac	1,278	34	52.2[a]	+ 4.5	95[a]	28	21[a]	17	44[a]	0.52	− 2.54	0.20	2.0	4	.....	.....	.....	sw.	E. N. Baily.
St. Charles‖	Madison	1,070	9	55.0	.....	92	29	22	17	40	0.60	− 2.92	0.20	1.6	7	15	8	7	nw.	R. D. Minard.
Sigourney‖	Keokuk	877	14	53.4	+ 2.2	88	29	22	24	38	3.30	+ 0.13	1.00	0.5	12	3	21	6	nw.	J. T. Parker.
Stockport‖	Van Buren	.....	8	51.8	.....	90	29	22	24	38	3.05	− 0.07	1.19	8.0	11	11	5	14	s.	C. L. Beswick.
Storm Lake	Buena Vista	1,440	21	50.6[a]	+ 5.2	90[a]	28	20[a]	24	45[a]	0.55	− 1.79	0.34	5.0	5	16	9	5	.....	S. B. Fracker.
Stuart	Guthrie	1,216	11	53.8	+ 6.4	91	28‖	26	23	45	1.41	− 1.75	0.50	0.5	5	13	8	9	nw.	J. P. Fox.
Tipton‖	Cedar	807	11	54.0	+ 5.1	87	29	25	23†	34	2.51	− 0.73	1.28	.....	10	16	4	10	s.	F. K. Gregg.
Toledo‖	Tama	856	16	53.0	+ 3.4	89	29†	21	17	39	2.12	− 0.69	0.50	.....	10	19	5	6	nw.	I. F. Giger.
Wapello‖	Louisa	588	12	53.2	+ 1.8	89	29	25	24	34	2.07	− 0.52	0.78	1.5	9	13	7	10	nw.	G. W. Schofield.
Washington	Washington	769	28	52.5	+ 2.0	89	29	22	24	36	3.11	+ 0.45	0.93	....	13	12	6	12	sw.	Wm. A. Cook.
Waterloo	Black Hawk	862	27	51.8	+ 4.8	92	29	24	17	41	2.17	− 0.16	0.73	5.0	11	16	3	11	nw.	M. L. Newton.
Waukee	Dallas	1,039	7	52.2	.....	92	28‖	20	17	43	1.31	− 1.89	0.91	0.6	12	12	13	5	nw.	Samuel F. Foft.
Waverly‖	Bremer	948	14	52.2	+ 5.2	92	29	23	17†	38	2.00	− 0.69	0.92	2.8	10	10	12	8	.....	H. S. Hoover.
Webster City‖	Hamilton	.....	5	53.4	.....	97	29	19	17	50	0.10	.....	0.10	1.0	1	11	13	6	nw.	C. D. Carpenter.
West Bend‖	Palo Alto	1,197	17	53.3	+ 7.0	93	28	24	16‖	36	0.35	− 2.37	0.18	3.0	4	11	10	9	.....	Joseph Dorweiler.
Whitten‖	Hardin	1,036	13	52.4	+ 5.0	93	29	17	17	40	1.32	− 0.82	1.00	2.0	4	15	10	5	sw.	F. P. Butler.
Winterset‖	Madison	1,129	19	53.8	+ 3.4	93	28	23	17	42	0.79	− 2.93	0.21	1.5	6	7	11	12	n.	Robert S. Cooper.
Zearing	Story	.....	6	52.6	.....	94	29	18	17	50	0.47	.....	0.28	0.5	7	3	21	6	nw.	Orley Reese.
Missouri.																				
Gorin	Scotland	700	24	.....	.....	.....	.....	.....	.....	.....	3.72	− 0.57	2.73	1.0	10	11	4	15	nw.	J. W. Pulliam.
Hannibal	Marion	534	18	53.3	− 0.3	92	29	24	24	35	2.60	−0.65	0.84	2.0	14	8	10	12	sw.	U. S. Weather Bureau.
Louisiana	Pike	500	32	53.4	0.0	93	29	23	24	44	2.82	− 0.19	0.41	1.4	13	9	10	11	nw.	J. T. Farrell.
Mexico	Audrain	797	32	53.0	− 1.4	92	29	25	24†	43	3.29	− 0.20	0.75	4.5	15	17	0	13	s.	J. F. Llewellyn.
Steffenville	Lewis	576	17	54.0	+ 1.5	90	29	22	25	36	5.04	+ 1.56	1.20	1.7	13	10	11	9	nw.	Lewis Spriggs.
Sublett	Adair	1,000	30	52.8	+ 1.2	89	29	24	24	39	2.55	− 0.99	2.00	1.0	5	7	9	14	sw.	Frank Hall.
Warrenton	Warren	865	20	53.7	+ 1.3	92	29	25	24	41	3.21	− 1.62	0.58	2.0	14	7	8	15	s.	Dr. J. H. Frick.
Indiana.																				
Collegeville	Jasper	.....	11	52.4	+ 3.6	90	29	24	24	43	2.98	− 0.52	1.20	T.	12	3	11	16	se.	Prof. L. C. Klosterman.
Knox‖	Starke	716	5	51.4	.....	84	29	23	24	39	4.73	.....	1.01	4.6	16	12	7	11	sw.	W. R. R. Tatman.
Laporte	Laporte	810	14	49.2[c]	+ 2.6	82[c]	11	25[c]	24	39[c]	3.48	+ 0.87	1.11	4.0	13	12[c]	4[c]	11[c]	nw.	J. E. Hallinen.
Plymouth	Marshall	790	7	50.1	.....	80	29	24	24	41	4.22	.....	0.86	7.3	16	13	7	10	sw.	J. W. Siders.
Illinois.																				
Aledo	Mercer	738	10	52.6	+ 2.8	88	29	20	24	35	3.62	+ 0.78	0.73	2.5	12	8	12	10	s.	Wm. B. Frew.
Alexander	Morgan	670	17	53.6	+ 0.6	89	29	22	24	36	2.69	− 0.06	0.73	2.5	14	8	8	14	nw.	George H. Hall.
Antioch	Lake	861	9	50.0	.....	85	29	18	24	45	2.94	.....	0.93	3.0	6	12	4	14	s.	J. C. James, jr.
Astoria	Fulton	650	11	52.8	+ 2.3	89	29	22	24	38	2.86	− 0.64	0.58	3.0	13	9	11	10	sw.	Ed. V. Bohl.
Aurora	Kane	687	31	50.4	+ 2.4	85	29	17	24	42	3.96	+ 0.97	1.07	8.0	13	7	7	16		W. Holden.
Bement	Piatt	700	3	51.5[b]	.....	80[b]	10†	22[b]	24	44[b]	3.13	.....	0.77	2.5	10	16	4	10	ne.	Rev. C. S. Adams.
Benton	Franklin	598	8	56.9[c]	.....	86[c]	29†	27[c]	24	34[c]	4.04	.....	0.95	4.0	13	9	6	15	nw.	F. H. Stamper.
Bloomington	McLean	840	19	53.1	+ 1.5	87	29	17	24	41	3.84	+ 0.08	0.57	4.0	16	12	12	6	sw.	Prof. H. N. Pearce
Cairo	Alexander	359	33	57.5	− 0.8	84	29	28	24	29	6.78	+ 3.21	2.03	1.6	14	7	8	15	s.	U. S. Weather Bureau.
Carbondale	Jackson	412	...	57.3	.....	87	29	27	24	42	3.70	.....	1.22	3.0	14	11	5	14	sw.	State Normal University.
Carlinville	Macoupin	663	20	54.3	+ 0.3	90	29	24	24	37	4.89	+ 0.95	1.81	3.0	11	13	7	10	s.	R. O. Purviance.
Chester	Randolph	380	6	57.6	.....	86	29	33	24	31	3.02	.....	0.74	1.4	11	16	7	7	s.	F. A. Gollon, jr.
Clinton	Dewitt	727	...	52.4	.....	85	29	18	24	40	2.93	.....	0.68	3.0	14	7	17	6	sw.	J. F. Ziegler.
Coatsburg	Adams	763	18	54.6	+ 2.1	91	29	22	24	34	2.85	− 0.85	0.80	3.6	10	10	5	15	s.	Dr. J. R. Lambert.
Cobden	Union	656	27	57.5	+ 0.7	87	29	26	24	36	6.19	+ 1.87	1.80	1.0	9	9	6	15	s.	John Buck.
Dakota	Stephenson	929	5	50.4	.....	84	29	16	24	40	3.32	.....	0.58	6.5	16	12	7	11	e.	Rev. G. W. Kerstetter.
Decatur	Macon	685	19	52.9	+ 0.7	85	29	23	24	42	3.00	− 0.05	0.56	2.5	12	15	5	10	w.	Prof. J. H. Coonradt.
Dixon	Lee	725	20	51.8	+ 3.1	90	29	18	24	49	3.43	+ 0.69	0.65	6.0	13	17	0	13	.....	H. V. Bardwell.
Du Quoin	Perry	459	22	56.6	+ 0.5	86	29†	26	24	38	3.23	− 0.46	0.52	4.0	13	13	7	10	sw.	G. H. Knetzger.
Dwight	Livingston	600	17	51.9	+ 2.4	88	29	22	24	44	3.84	+ 1.15	0.64	4.5	14	9	7	14	sw.	Ed. O. Welch.
Galva	Henry	842	18	51.2	+ 1.6	90	29	16	24	42	2.52	− 0.47	0.50	5.1	14	14	1	15	nw.	Prof. F. U. White.
Greenville	Bond	635	32	55.2	+ 0.3	86	29	25	24	34	2.55	− 1.53	0.87	1.5	12	11	3	16	sw.	M. S. Oudyn.
Griggsville	Pike	650	25	55.8	+ 1.7	91	29	23	24	35	2.72	− 0.89	0.50	3.0	10	10	8	12	nw.	Geo. F. Kneeland.
Halfway	Williamson	569	14	55.8[a]	− 0.7	83[a]	29	27[a]	24	31[a]	4.45	+ 1.02	1.07	7.0	11	12	5	13	s.	E. L. Hearn.
Havana	Mason	475	18	55.3	+ 2.2	90	29	24	24	41	3.82	+ 0.54	0.80	1.5	13	10	16	4	s.	F. & C. Borgelt.

TABLE 1.—*Climatological data for April, 1910. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Illinois—Cont'd.																				
Henry	Marshall	500	22	53.4	+ 3.3	89	29	22	24	41	3.28	+ 0.11	0.64	4.5	13	12	5	13	sw.	Dr. F. A. Powell.
Hillsboro	Montgomery	675	16	52.8	− 0.4	85	29	23	24	41	5.19	+ 1.72	1.85	2.0	12	14	2	14	s.	Ira L. Woodward.
Joliet	Will	541	19	51.2	+ 2.5	87	29	84	23	40	3.81	+ 1.22	0.94	4.4	14	13	1	16	nw.	F. M. Muhlig.
Kishwaukee	Winnebago	730	22	51.1	+ 3.4	86	29	16	24	37	3.84	+ 0.65	0.72	9.0	16	12	7	11	sw.	Geo. Stevens.
La Grange	Cook	657	18	52.8[1]	+ 5.1	81[1]	11	29[1]	7†	44[1]	3.47	+ 0.72	0.78	5.5	15	9	7	14	sw.	Prof. F. E. Sanford.
La Harpe	Hancock	698	31	52.4	+ 1.1	92	29	20	24	37	2.37	− 1.17	0.56	T.	10	15	6	9	sw.	Jno. S. Campbell.
Lanark	Carroll	883	21	50.4	+ 2.8	85	29	18	24	43	3.01	− 0.16	0.78	4.0	13	16	3	11	s.	M. N. Wertz.
La Salle	La Salle	536	33	51.8	+ 2.0	88	29	21	24	38	3.78	+ 0.68	0.57	4.6	16	10	7	13	sw.	U. S. Weather Bureau.
Lincoln	Logan	482	22	51.4[a]	− 0.7[a]	85[a]	29	18[a]	24	38[a]	3.56	+ 0.68	0.68	4.7	13	10	9	11	sw.	Prof. C. S. Oglevee.
Martinton	Iroquois	633	23	51.6	+ 2.2	88	29	22	24	47	2.27	− 0.94	0.38	2.0	13	14	4	12	s.	Jos. H. Peltier.
Mascoutah	St. Clair	425	20	56.8	+ 2.8	91	29†	26	24	42	4.62	+ 0.44	1.45	2.0	10	12	9	9	se.	Geo. Henrich.
Minonk	Woodford	745	17	53.0	+ 2.8	89	29	16	24	45	3.63	+ 0.82	0.92	9.0	12	11	10	9	sw.	O. M. Davison.
Monmouth	Warren	784	18	54.0	+ 2.9	91	29	20	24	39	2.91	− 0.16	0.99	4.5	16	12	9	9	nw.	Hugh R. Moffet.
Morrison	Whiteside	645	16	51.7	+ 2.5	86	29	20	24	42	4.09	+ 0.77	0.82	11.3	14	12	7	11	s.	S. A. Maxwell.
Morrisonville	Christian	638	11	53.0[a]	+ 1.4	85[a]	29	20[a]	24	43[a]	3.43	+ 0.15	0.97	3.3	11	10	10	10	nw.	J. D. Lowis.
Mount Vernon	Jefferson	511	16	55.2	+ 0.9	86	29	27	24	45	3.43	− 0.01	0.50	4.0	15	10	4	16	n.	Theo. P. Stelle.
Oregon	Ogle	702	1	51.9	.....	89	29	12	24	40	3.74	.....	0.65	6.5	14	12	5	13	sw.	Samuel Ray.
Ottawa	La Salle	500	24	53.0	+ 2.4	89	29	19	24	48	3.28	+ 0.37	0.53	6.0	11	9	7	14	sw.	Miss M. M. Harris.
Pana	Christian	692	24	53.8	+ 0.5	85	29	22	24	35	3.49	− 0.22	0.85	2.0	13	19	5	6	nw.	C. W. Sibley.
Peoria	Peoria	609	33	52.0	+ 1.1	89	29	22	24	36	3.56	+ 0.28	0.78	1.7	17	11	10	9	s.	U. S. Weather Bureau.
Pontiac	Livingston	546	8	53.0	.....	88	29	21	24	42	4.07	.....	0.76	6.0	15	12	7	11	sw.	Geo. Butterworth.
Riley	McHenry	956	51	50.6	+ 4.8	84	29	16	24	39	3.32	+ 0.64	0.73	4.5	15	8	10	12	nw.	John West James.
Rockford	Winnebago	763	18	50.2	+ 2.1	87	29	17	24	39	3.50	+ 0.38	0.54	3.0	18	14	2	14	.....	Hosmer C. Porter.
Rushville	Schuyler	670	19	54.4	+ 1.5	90	29	22	24	34	2.82	− 1.20	0.55	3.0	11	7	10	13	s.	H. F. Dyson.
St. Charles	Kane	700	15	50.9	+ 3.2	87	29	20	24	43	3.81	+ 0.78	0.52	6.0	16	6	14	10	sw.	Dr. Wm. H. Bishop.
St. Peter	Fayette	500	8	55.6	.....	88	29	24	24	38	1.87	.....	0.38	1.5	11	10	9	11	nw.	M. L. Lansford.
Springfield	Sangamon	644	33	53.7	+ 1.7	89	29	22	24	33	2.81	− 0.50	0.60	3.6	15	8	7	15	s.	U. S. Weather Bureau.
Streator	La Salle	626	17	52.4	+ 2.6	90	29	20	24	45	4.20	+ 1.31	0.84	5.8	13	16	4	10	sw.	Edw. F. Sweetser.
Sullivan	Moultrie	530	10	53.0	+ 1.8	86	29	24	24	42	3.18	− 0.91	1.45	4.5	10	12	10	8	nw.	C. A. Corbin.
Sycamore	De Kalb	855	30	49.8	+ 2.7	89	29	17	24	48	3.78	+ 0.45	0.73	2.0	13	14	3	13	se.	Miss E. J. Davis.
Tilden	Randolph	500	24	55.8	+ 0.1	88	29	25	24	38	3.23	− 0.71	0.65	5.0	15	12	2	16	nw.	Jas. A. Caldwell.
Tiskilwa	Bureau	798	16	52.7	+ 3.4	89	29	16	24	38	2.66	− 0.49	0.51	6.0	14	14	5	11	sw.	F. L. Smucker.
Walnut	....do	717	19	52.2[a]	+ 1.1	90[a]	29	18[a]	24	39[a]	2.42	− 0.42	0.40	2.1	13	14	7	9	se.	O. C. Nussle.
White Hall	Greene	573	2	53.4	.....	90	29	24	24	40	3.34	.....	0.67	4.5	15	11	5	14	w.	Dr. R. A. Pritchett.
Windsor	Shelby	681	11	53.2	+ 1.4	85	29	24	24	43	2.83	− 0.37	0.84	2.7	12	8	5	17	s.	Herbert Rose.
Winnebago	Winnebago	900	23	51.4	+ 3.6	87	29	15	24	42	4.56	+ 1.22	0.87	10.0	14	15	4	11	s.	Frank Osborn
Yorkville	Kendall	584	23	51.0	+ 3.6	85	29	18	24	45	4.16	+ 1.26	1.00	5.5	17	15	3	12	w.	Herman A. Grimwood.
Zion	Carroll	938	16	51.5	+ 3.2	87	29	19	24	39	2.67	+ 0.08	0.50	10.0	9	21	1	8	w.	Robt. F. Gillogly.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
‖ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
[1] Estimated by observer.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for April, 1910. District No. 5, Upper Mississippi Valley.*

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
North Dakota.																																	
Amenia	Red														T.	.56	.50	.40												.38	.10		1.46
Bottineau	Mouse				.36										.16	.34	T.													.30			1.34
Cando	Sheyenne													.15	.32		.25													.30			1.02
Crosby	Mouse			.04										.33	.48														T.	.31	.22		1.38
Devils Lake	Sheyenne													T.	.55	.27	.11													.20	.09		1.22
Donnybrook	Mouse												T.		.75																		0.75
Dunseith	...do			.11											.35			.02												.35	.08		0.99
Edmore	Sheyenne													.35		.46	.20	.10												.15			1.06
Forman	...do			T.												.71			.67														1.38
Grafton	Red														.10		1.00	.80												.62	.23		1.90
Granville	Mouse				.12										.48	.04	T.													.57			1.49
Hannah	Pembina													.03	.50	.20	.10	T.												.65	.12		1.40
Hansboro	Red				.05									.11	.35	.15	.08	.03												.20	.05		1.54
Hillsboro	...do				.05										.23		.76	.60	.20											.12	.10		2.09
Lakota	Sheyenne													.01	.66	.30	.50	.60													.30		2.29
Langdon	Pembina														.08	.97	.14	.11													.15		1.60
Larimore	Red															.28	.21	.20	.07		.40												1.31
Lisbon	Sheyenne											T.		*	.02	.36	.20	.20	.60	T.										.35	.11		1.38
McKinney	Mouse		T.												.54															.20	T.		1.00
Manfred	Sheyenne														.65	.10	.10	T.												.40			1.05
Mayville	Red														.36		.35	.80												.40	.22		1.91
Minot	Mouse				.06					.03					.89	.08		T.												.49	.22		1.88
Minto	Red														.15	.60	.27	.16	.03											.12			1.33
Oriska	Sheyenne														.19		.06		.30											T.			0.55
Park River	Red														.52	.32	.08	.08												.06			1.06
Pembina	...do			T.	.10										T.	.48	.27	.80	1.10	.21	.18	.22	.05	T.						T.			3.41
Portal	Mouse														*	1.60	*	*	.80														
Power	Sheyenne														.52				.04										.95		.15		1.80
Pratt	Mouse															.28	.10	.10															1.66
University	Red														.28		.20	.30	.10														0.48
Wahpeton	...do			.75																													1.63
Walhalla	Pembina													T.	.77	.01	T.													.50	.31		1.77
Westhope	Mouse				.18										.35	T.														.85	.05		1.25
Willow City	...do																																
Minnesota.																																	
Albert Lea	Mississippi			T.								T.			T.	.15	.20	T.					T.	.20	.15							0.70
Alexandria‖	...do	T.			.43	.03							T.			1.70	.35	.50	T.	.02			T.										3.03
Angus	Red														.31	T.	.10	.20					T.							.31	.06		0.98
Bagley	...do			.43	.02					T.					.14	.91	.69	T.					T.							.04			2.23
Baudette	Rainy			T.												.43	.17	.56	.33											.29			1.78
Beardsley	Minnesota														.41	.97	.25	.20	.10														1.93
Beaulieu	Red				.38										.23	.70	.30	.10	.05				T.							.10			1.86
Bird Island	Minnesota				.05										T.	.57	T.	.33	T.				.05	T.									1.00
Caledonia‖	Mississippi				.03	.45	.28									.22	T.	.45					.50	.11	.22						T.		2.26
Campbell‖	Red			T.	.50	T.									.02	.61	.44	.30	.20	T.													2.07
Cass Lake‖	Mississippi				.20	.10									T.	.60	.45	.60	.20		T.	T.	T.										2.15
Collegeville	...do	.02		T.	.70	.02						.01				.47	.04	.30				T.	.08	T.									1.64
Crookston‖	Red	T.		T.	.05	T.									.02	.46	.85	.30	.32				T.								T.		2.18
Detroit‖	...do	T.		T.	.50	T.									.16	.70	.53	.20	.14	T.		T.	T.										2.23
Fairmont (near)	Minnesota											T.				.15	.30	.10							.10								0.65
Faribault	Mississippi														.03	.01	T.	.10	.01				.10	.19	.14								0.58
Farmington	...do											T.			T.	.20	T.	.20					.05	.05	.05								0.55
Fergus Falls	Red				.23	T.									.12	1.24	.10	.40	.05				T.										2.14
Fort Ripley‖	Mississippi				.10	.11							T.			.60	.58	.25					T.										1.64
Fosston	Red				.25	T.									.09	.57	.24	.28	.08											.07			1.58
Glencoe	Mississippi														T.	.65	T.	.26					.25	T.	.20								1.36
Grand Meadow	...do				T.							.03			.05	.08	.07	.04						.13	.03					.01			0.43
Hallock	Red				.07										.20	.75	.10	.75															1.88
Halstad	...do				.15	T.									.20	.30	.38	.09	.06												.07		1.25
Hinckley	St. Croix				T.							T.						.41							.11								0.52
International Falls	Rainy				T.	.40										.37	.03	1.13	.21					T.						.24	.01		2.38
Kelliher	Red																.08	.24															0.32
Lake Crystal	Minnesota																																
Leech Lake Dam	Mississippi			.09	.38	.26										.80	.05	.55	.09														2.22
Little Falls	...do																																
Little Fork	Rainy				.15	.22										.48	.05	1.34	.21											.28			2.73
Long Prairie	Mississippi														.33	1.01	T.	.30	.05				T.										1.69
Lynd (2)	Minnesota																	.42					.08	T.	.18								0.68
Mankato‖	...do																																
Mapleplain	Mississippi											T.						.67			T.	.10											
Milaca	...do														.76	.67	.10	.25	T.	.04	.08													2.30
Milan	Minnesota	T.			.40											.10	.13	.18			.03	.06	.12											0.64
Minneapolis	Mississippi				.02											1.30	.18		.67			.02												2.75
Montevideo‖	Minnesota	T.			.58										.18	1.00	.02	.42	.12											T.			1.92
Moorhead	Red			.18								.01				.15	T.	.40					.07	T.	.02								0.71
Mora	St. Croix				.06										.20	1.27		.30															2.33
Morris	Minnesota				.56											.98	T.	.60															2.06
New London	Mississippi				.48				T.			.27			T.	.16	.12	T.					.09	.45										1.09
New Richland	Minnesota															.45	T.	.40	T.				.10	T.	.10								1.05
New Ulm‖	...do														T.	2.54	.25	.31	.03		.25	T.											4.06
Osakis	Mississippi				.64	.04										.75	1.02	.38	.15	.09		T.	T.											2.79
Park Rapids‖	...do			T.	.40	T.										.85	T.	.70				T.											1.98
Pine River Dam	...do				.18	.25																T.	T.	T.					T.				1.49
Pokegama Falls	...do			.07	.16	.12					.08			T.		.59	.07	.36	.04			T.	T.	T.						.12			2.51
Red Lake	Red				.27											1.24		.68	.20														2.86
Red Wing‖	Mississippi															.16		.30	.06	.02			.08	T.	.24	T.							1.03
Redwood Falls	Minnesota														T.	.45	T.	.50					.08										0.72
Reeds Landing‖	Mississippi									.16						.02		.10	.04	.24			.04		.12								0.77
Rochester‖	...do															.13	T.	.34	.25	T.			T.		.05								0.77
Roseau	Red				.04	.10									.61	.37	.42	.50	.13											.10			2.27
St. Charles‖	Mississippi					.11	.02									.12		.33	.04	.01			.09		.12								0.54
St. Cloud	...do				.70	.06						T.				.25	.03	.35			T.	.14	T.										1.52
St. Paul	...do				T.										T.	.10	.16	.10			.10	T.	.13										0.59
St. Peter	Minnesota															.13	T.	.22					.13	T.	.25								0.73
Sandy Lake Dam	Mississippi																																
State Sanatorium	...do				.45											1.24	.11	1.00	.10														2.90
Stillwater‖	St. Croix				T.											.16	T.	.26	T.				.08		.08								0.58
Taylors Falls	...do				.12											.13	.29								.17								0.71
Warroad	Rainy				.16										.06	.40	.30	.40												.19			1.51
West Concord	Mississippi															.20	.20	.20	.20				.30	.50									1.60
Willow River	St. Croix																																
Windom	Des Moines														T.	.30	T.	.30					.07	T.	.10								0.77
Winnebago‖	Minnesota															.05	.12	.25	T.				.09	T.	.18								0.69
Winnibigoshish	Mississippi				.26	.14								.04		.88	.05	.60	.13											T.			2.10

TABLE 2.—*Daily precipitation for April, 1910. District No. 5*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Minnesota—Cont'd.																																	
Winona	Mississippi				.21	.20	T.					T.				.11	.28	.16	.01				.03	.12	.08	T.							1.20
Worthington‖	Des Moines															.65	.19	.07	T.				.05										0.88
Zumbrota	Mississippi							T.									.39	T.	T.				T.	.10									0.40
South Dakota.																																	
Milbank	Minnesota	.11			.19										T.	.96	.79	.07	.04														2.12
Wisconsin.																																	
Antigo	Wisconsin																																
Barron	Chippewa																.20	.60						.10									0.90
Beloit	Rock			*	.30	.49	.50					.40				.10	.56	.21	T.				.35	.40		.29	T.				T.		3.64
Brodhead	do			.22		.21	.45					.16				.39	.56	.10	.31				.32	.80		.15	.35	.05			T.		4.07
Burnett	do			.11	T.	.45	.66					.12					.52	.04	.05	.02			.49	.41	T.	.19	.38	.06		T.			3.48
Delavan	do			.03	.31	.10	.24					.03				.03	.53	*	.05	.02			.67	.57	.06	.54					.06		3.24
Dodgeville	do																																
Downing	Chippewa															T.	.40	.20						.20									0.80
Eau Claire	do				.06	T.										T.	.40	.30	.17				.12	.20	.04								1.29
Ellsworth	Mississippi																																
Glidden	Chippewa																																
Grand Rapids‖	Wisconsin					.25	.98						.22			.22		.80	.13	.12		T.	.13	.65	.14	.42	T.	.08					4.14
Grantsburg	St. Croix											T.				.22	T.	.33						T.	.20								0.75
Hancock	Wisconsin				T.	.97	.53					.18			.25		.35	.25	.20				1.30	.40	.13	T.	.12						4.67
Hatfield	Black				.70	.62	.90					.25				.12	*	.54	T.	T.		.13	T.	.06	.20	.33							3.85
Hayward	St. Croix															.45	.60							.05									1.10
Hillsboro	Wisconsin				.57	.97						.10			.53		.85		.10				.95		.16	.16				T.			4.39
Koepenick	do				.01	.04	1.05					T.					.10	.67	.26				.80	.99	.30								4.23
LaCrosse	Mississippi				.09	.63						T.			.02	.16	.45	.16	.01				.30	.17	.18	.06							2.23
Lake Mills	Rock			.03	.06	.18	.52					.08				T.	.62	.26	.06				.48	1.10	.14	.31	.09	.06			T.		3.99
Lancaster	Mississippi				.10	*	1.50					.17			.61		.40	.24	.05				.80	.25									4.12
Long Lake	Wisconsin				T.	.22	T.		.01			.02				.08	.03	.42	.03				.66	.41	.12	.02							2.02
Madison	Rock			.13	.10	.82	.44					.17			.04	.17	.54	.08	.03			T.	.54	.80	.07	.22	.41				T.		4.56
Mather‖	Wisconsin				T.	.71	.85						T.			.31		.78	.09	.04			.29	.32	.20	.41	T.						4.01
Mauston	do					1.10	.70					.10				.50	.45	.12	.05				1.35		.17		.15						4.69
Meadow Valley	do				T.	1.40						.15				.33	.68	.09	.04				.69	.05	.25								3.68
Medford	Black				*	3.15										.55	*	.55				.10	.10										4.45
Merrill	Wisconsin				.01	1.10	.05									.10	.12	.15					1.12	.80	.45								3.90
Minocqua	do					.30										T.	.20	.60					.10	.15									1.35
Mondovi	Mississippi				.30	.03						T.				.07	.30	.15	.09	.07				.07	.02								1.10
Mount Horeb	Rock			.08	.06	.74	.90					.25	.01			.30	.60	.25	.06				1.25	.60	.14	.15	.50				T.		5.89
Muscoda‖	Wisconsin				T.	.22	1.64		T.				.12			.51	T.	.74	.16	T.			.30	.76	.34	.01	.12						4.92
Neillsville	Black				T.	.46	.43					.50				.13	*	1.88					*	*	*	.70							4.10
New Richmond	St. Croix															.21	.20	.80						.20									1.41
Osceola	do				T.							T.				.13	.33						.05	.18									0.69
Portage	Wisconsin			.08		.67	.53					.12			.50		.76	.10					1.70	.20	T.	.15	.20						5.01
Prairie du Chien‖	Mississippi				.06	.26	1.18		T.				.14			.46		.38	.04				.20	.58		.04							3.34
Prentice	Chippewa				T.	.54						.14				.32	.47	T.	.11				.12	.17	T.								1.87
Rhinelander	Wisconsin				T.	1.00	.05									.11	.16	.30	.13				.56	.28	.20	.03							2.82
Sauk City	do																																
Shullsburg	Mississippi			.08		.77	.88					.09				.92	.49	.16	.10				.93	.40			.34						5.16
Solon Springs	St. Croix															.40	.50						.20	T.	T.								1.10
Spooner	do											T.				.02	.50	.10	T.				.20	T.									0.82
Stanley	Chippewa				T.	.25										.12	.34	.35	.07				.05	.35	T.								1.53
Stevens Point	Wisconsin					1.01	.25					T.			*	*	1.06						2.00	*	*	.50							4.82
Valley Junction	do				.17	1.63	.39					.03				.57	.32	.47	.31				.77	.24	.12		.29						5.31
Viroqua	Mississippi			.01	.05	1.10	.20									.28	.54	.18	.02	T.			.34	.04	.14	T.							2.90
Vudesare	Wisconsin				T.	.90	T.				T.	T.					.40	.20		T.			.60	.26	T.	T.							2.36
Watertown‖	Rock			.12	.24	.10	.38	.02					.29			.14	.05	.56	.15	.10				.30	1.20		.12	.20					3.97
Waukesha	Fox				.43	.45	.03					.03					.28	.12					.95	.80	.10	.45	.27						3.91
Wausau	Wisconsin				T.	.95	.42					.02				.18	.19	.63	.17				.86	.23	.10	.13							3.88
Weyerhaeuser	Chippewa				.09							.06				.11	.35	.30	T.			.06		.17	T.								1.14
Whitehall	Mississippi					.09											.30	.80															1.19
Iowa.																																	
Albia‖	Des Moines					.26	.90					.08	.06			.08		.06	.08	.03				.26	.07	.14							2.02
Algona	do														T.	.06	.09	.09						.05									0.29
Alta‖	Raccoon												.34			.22	.02	.35	.05					.07	T.								1.05
Amana	Iowa				.01	1.14	.57		.02							.37	.13	.08	.02	.03			.12	.02		.09	.02				T.		2.62
Ames	Skunk				.10	.10						T.	.20				T.		T.					T.	.10								0.50
Baxter	do				1.49	.14			.01			.11	.02		.03	.04	.04	.08	.04				.18	.02		.05							2.25
Belle Plaine	Iowa				.05	.60			T.								.30	.15	.02				.22	.20		.15							1.69
Belmond	do			T.				T.				.61				.03	.08	.10	.03					.05	.08						.06		1.04
Bloomfield	Mississippi					1.12	.24										.08	.26	T.				.64		.24	.01					.10		2.69
Bonaparte	Des Moines		.02		.36	1.32	.46								.06	.12	.12	.10	.05					.03	.03	.12	.17				.07		3.09
Boone‖	do				.05								.43			.04		.14	.02				.07		.09	T.							0.84
Britt	Iowa			T.								.75				.02	.07	.05						.02							T.		0.91
Buckingham	Cedar				.34	1.06									T.		.15	T.					.20										1.75
Burlington‖	Mississippi			.36		.46	.80									1.28		.33	.60	.06				T.	.33	.19	.45				T.		4.86
Carroll‖	Raccoon			T.												10		10						T.									0.20
Cedar Rapids‖	Cedar			T.	T.	1.40		T.				.10				.42		.20	.06	.05		T.	.20	.03	.05	T.				T.			2.51
Charles City	do				.18	.03										.22	.01	.03					.16	.10	.02								0.88
Clear Lake	do																	.13						.10		.10							0.20
Clinton	Mississippi			.24		.12						.75				.33		.38	.21				.30		.38	.21	.13				.30		3.55
Columbus Junction	Iowa			T.	T.	1.00	.45									T.		.45	.15	.05			.15	T.	.04	.10	.20				.45		3.04
Davenport	Mississippi		.15	.06		1.09	.21					.01				.44	.01	.38	.09	.01	T.		.24	.06	.06	.11	.13				.64		3.69
Decorah	do				.06	.67											.70	.42	.03	T.			.25	.20	.21						T.		2.56
Delaware	do				.30	.50	.90		.02								.27	.24	.04	.02			.52	.12		.05							2.96
Des Moines	Des Moines			.30	T.	.17		T.				.12			.23	T.	.01	.09	.02		.09	.04	.08	T.									1.13
De Soto	Raccoon				1.32	.13						.10				T.	T.	.03	T.					T.	.02	T.								1.62
Dubuque	Mississippi			.02	.02	.93	.50		.01						.26	.08	.38	.04	.05				.68	.35		.04	.02						3.40
Earlham	Raccoon				1.58	.12								.13	.07	.05	T.	.10						.10	.10									2.23
Elkader	Mississippi				.19	1.20						.25	.40				.30	.03	T.				.20	.50	.09								3.16
Elma	Wapsipinicon				.25	.05			.05			.32				.42	.10	.12	.05				.15	.05	.02	.03					T.		1.61
Estherville‖	Des Moines												.30			.33	T.	.20							.12								0.95
Fairfield	Skunk		T.		.05	1.07	.67		.02			T.	.09			.19	.13	.10	.06	.01			.30	.10	.01	.08	.07				.23		3.18
Fayette	Mississippi				.45	.85										.62	.42	.04	.03				.24	.18	*	.20							3.03
Forest City‖	Cedar															T.	T.	.15															0.15
Fort Dodge‖	Des Moines			T.	T.											.08		.10	.07					.10									0.35
Fort Madison	Mississippi				T.	.90									.98	T.	T.	.10	.30				T.	T.	.20	.50					.21		3.19
Gilman	Iowa																																
Grand Meadow	Mississippi				.22	1.00			.10			.35				.29	.57	.02	.01				.15	.10		.10							2.91
Greene	Cedar				T.							.20				T.	T.	.21	.03				.37	.03	T.								0.84
Grinnell	Iowa				.90	.42						.25	.10			.54	.02	.14	T.				.27			.11							2.75
Grundy Center	Cedar																																
Guthrie Center	Raccoon		T.		.30							.04			.12	.21	.02	.12	T.					T.	T.								0.81
Hampton	Cedar											.38					.10	.17			.20			.08									0.93
Humboldt	Des Moines											.12			.08		T.	.12				T.	T.	.03						.63		0.38
Independence	Wapsipinicon				.33	.15										.69	.20	.10	T.					T.									1.47

TABLE 2.—*Daily precipitation for April, 1910. District No. 5*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Iowa—Cont'd.																																	
Indianola	Des Moines				.05	.28		T.				T.	.02	.04	T.	.05	T.	.08	.03					.01	T.	T.							0.56
Iowa City‖	Iowa			T.		.22	1.16						.03			.21		.06	.20	.02			T.	.45	.02	.07	.12						2.56
Iowa Falls‖	do				.11	T.			T.				.62			.02	T.	.40	.10	T.			.32	T.	.15	T.							1.72
Jefferson	Raccoon							T.				T.			T.	.25	T.	.02					.05	.05									0.37
Keokuk	Mississippi		.08		.10	.70						T.			1.25		.11	.21	.01				.05	.03	.04	.10	.20				T.		2.91
Keosauqua‖	Des Moines			T.		.24	1.83		.01				T.			.21		.10	.15	.05	T.			T.	.18	.27	.21				T.		3.25
Knoxville	do				.20	.24						T.				.08	.03	.05	.04				.07	.03		.09					T.		0.85
Lacona	do					.46						.54			.20	.10	T.	.10	.10				.24	.01	.10	.10							1.95
Le Claire‖	Mississippi			.18	T.	.22	.50						T.			.42		.28	.21	T.	T.			.20	.11	.08	.20	.11					2.51
Marshalltown‖	Iowa				.61	.08	.11						.26			.24		.11	.07				.28		.03	.10							1.89
Mason City	Cedar											.14			.03		.02	.04						.08									0.31
Mount Pleasant	Skunk			.06	T.	1.42	.30		.02			T.				.27	.18	.10	.14	.02			T.	.02	.02	.07	.18				.23		3.03
Muscatine‖	Mississippi			.23		.32	.90									.32		.34	.10	T.			T.	.10		.09							2.40
New Hampton	Wapsipinicon				.51							.15				.25	.20	.22						.20	T.								1.64
Newton	Skunk					.20	.16						.10			.19		.02					.45										1.12
Northwood	Cedar			T.											.01	.08	.03	.09	.07	T.				.50	.20								0.98
Olin	Wapsipinicon																																
Osage	Cedar				T.											T.	T.	.25					T.	.10	T.								0.35
Oskaloosa	Des Moines				.03	.90			.03			T.	.06		.39		.10	.12	.03			.03	.19	.30	.13	T.					.18		2.49
Ottumwa	do			T.	.11	1.16	.04					T.			.09	.20	.08	.07	.04				.27	.01			.15				.33		2.52
Pella	do				T.	.80			.04			T.	T.		T.	.01	.04	.10	.04	T.			.15	.01	T.	.08					T.		1.27
Perry	Raccoon				.15			T.				T.	.14		*	.20	T.	.12	T.					T.									0.61
Plover	Des Moines														.02	T.	.10	.02							.08								0.22
Pocahontas	do															.03		.09							.11								0.23
Ridgeway	Mississippi				.52	.21		.05				.25			.30		.71	.26	.03	T.			.56	.23	.40						T.		3.52
Rockwell City	Raccoon							T.							.02		.10	.50	.10					.20							.10		1.02
Sac City	do							T.							.11	.17	T.	.20						T.	T.						.04		0.52
St. Charles	Des Moines			T.	T.	.20							.16		.03		T.	.16	.01				.01	.03									0.60
Sigourney	Skunk					1.00	.30					T.	.40			.25	.15	.12	.12	.02			.50	.02	T.	.09					.33		3.30
Stockport	do		T.		T.	1.19	.88					T.			T.	.15	.15	.20	.07	.01			T.	T.	.05	.05	.11				.19		3.05
Storm Lake	Raccoon														.15	.11	*	.34													.05		0.55
Stuart‖	do			.28	T.								.50		.48	.10	.05							T.									1.41
Tipton	Cedar					1.28		.03									*	*	.32				.45	.12		.09					.22		2.51
Toledo	Iowa				.45	T.	.50	T.				.08				.45	.03	.08	.03	T.			.40	.03		.07							2.12
Wapello	do			.16	.78	.23									T.	.20	.14	.10					T.	T.	.01	T.	.20				.25		2.07
Washington	Skunk				.86	*	.93								.12		.14	.12	.06				.22	.01	.02	.10	.11				.42		3.11
Waterloo‖	Cedar				.73	.34			.04			.05				.36	.26	.05	T.				.11	.14	.07	.02							2.17
Waukee	Raccoon			T.	.91	.11		T.				.05	.10		.02	.02	.01	.02	.01				T.	.02	.02	.02							1.31
Waverly	Cedar				.92	.12										.40	.10	.13	.04				.10	.05	.03	.11							2.00
Webster City	Des Moines											T.				T.	T.	.10					T.	T.							T.		0.10
West Bend	Des Moines			T.								.03			.04			.18						.10							T.		0.35
Whitten	Iowa				1.00	.12						T.					T.	.10	T.					.10									1.32
Winterset	Des Moines			T.	.12	.21							.14		T.	.13	T.	.10	T.					T.	.09	T.					T.		0.79
Zearing	Iowa				.28											.04	.02	.03	.01				.04	.05									0.47
Missouri.																																	
Darksville	Chariton																																
Gorin	Mississippi			.05		2.73					.02		.06		.38		.09	.15	.07						.04	.13					T.		3.72
Hannibal	do		.32	.05	.36	.59	T.					T.			.30	T.	.06	.17	.08	T.			.21	.05	.02	.03	.23				.13		2.60
Lousiana	do		T.	.40		.40	.06					.39			T.	.09	.41	.16	.05				.25	.03	.10	.08	.40						2.82
Mexico‖	do			.55	.04	.64	.75						.23			.12	.04	.03	.20	.08				.18	.11	.05	.19	.07					3.29
Steffenville	do		T.	.50	.70	1.10	.40								.23	1.20	.11	.20		T.			T.	T.	.25	.05	.25				.05		5.04
Sublett	do		T.		T.	2.00							.10		T.	.25	T.	T.	.10					T.	T.	.10					T.		2.55
Warrenton‖	do			.30		.22	.14						.23	T.		.58	.51	.22	.16	.22				.15	.12	.04	.31	.01					3.21
Indiana.																																	
Collegeville	Iroquois			T.	.05	.04	.07					.03				.03	.10	.22	.16			1.20	.10		.18	.80							2.98
Knox	Kankakee			.01	1.01	.05	.02					.37	.11			T.	.88	.18	.42	.16			.16	.30	.13	.25	.56	.12					4.73
Laporte	do				.36	.01	.01					.01						.70	.20				.65	.15	.11	.28	.83	.10			.07		3.48
Plymouth	do			.02	.56	.03	.17					T.	.36			.04	.86	.22	.48	.19			.18	.25	.14	.24	.36	.12					4.22
Illinois.																																	
Aledo	Mississippi				.34		.73	.46							T.	.70	.29	.17	.07				.10	.02	.08		.32	T.			.34		3.62
Alexander	Illinois		.10	T.	T.	.43	.04					T.	.06			.73	.43	.07	.04	T.			.21	.05	.05	.04	.40	.04					2.69
Antioch	do				.30	.18										T.	.63		T.				.93	.70							.20		2.94
Astoria	Illinois		T.	.21	T.	.42	.18					T.	.08		T.	.25	.58	.10	.03	T.			.30	.10	.20	.01	.40				T.		2.86
Aurora	do			.06	.15	.22	.01						.63			.15	.61	T.	.21			1.07	.30		.11	.31				.13		3.96
Bement	Mississippi			.10		.12	.07										.77	.08	.20			.32	.67	.25	T.		T.					3.13
Benton	do			.10		.50	.05					.25		.15		.70	.95	.04	.26	.10			.10	T.	.50		.40	T.					4.04
Bloomington	Illinois			.07	.09	.42	.22					.15	.33			.57	.54	.06	.34	.02			.44	.10	.03	.11	.35				T.		3.84
Cairo	Mississippi		T.	.28	.35	.48						1.06	.53		1.42	1.57	.46	.09	.03	.02			.02	T.	.22	T.	.25						6.78
Carbondale	Mississippi			.05	.34	.32	.08					.14	.28			.50	1.22	.02	.15	T.				T.	.26	.10	.22	.02					3.70
Carlinville	Illinois		.24		.04	1.30										1.81	.14	.46	.14				.25	.02	.13	T.	.36	T.					4.89
Carlyle	Mississippi			.55		.50	.06						.30			.50	.80	.50	.15					.25	.20								3.81
Chester	do			.16	.46	.01	T.					.30	.20			.74	.48	.08	.18				T.	.14		T.	.27						3.02
Clinton	Illinois			T.	.10	.68	.08					T.	.01			.16	.67	.07	.18	T.	.02		.18	.08	.07	.08	.55	T.					2.93
Coatsburg	Mississippi			.50	T.	.80	.18		T.					.11			.26	.20	.08				.24	.08			.40				T.		2.85
Cobden	do				.90	1.80						.47	.22				1.70	.20	T.	T.			.08	T.	.27		.55						6.19
Dakota	Mississippi			.21	.11	.38	.47					T.	.01			.40	.58	.10	.13				.25	.05	.04	.15	.34	.04			.06		3.32
Decatur‖	Illinois			.09	.07	.38	.10					.03	T.			.20	.30	.56	.21		T.		.34	.20	T.	T.	.52						3.00
Dixon‖	Mississippi			.34	.15	.16	.10						.65			.40	T.	.48	.10					.12	.40	.10	.33	.10					3.43
Du Quoin	do			.05	.05	.05	.23					.50	.25		.52		.35	.15	.20	.08			.09	T.	.40		.35						3.23
Dwight	Illinois			.08	.42	.23	.10					T.				.50	.47	T.	.37	.05			.64	.17	T.	.26	.48	.04			.03		3.84
Edwardsville	Mississippi		.09	.41	.04	.96						.14				.63	.55	.02	.27				.12	.02	.12		.32						3.71
Galva‖	Illinois			.19	.01	.39	.25					T.			T.	.26	.30	.21	.03				.03	.09	.10	.02	.50				.14		2.52
Grafton‖	Mississippi			.24	.08	.68	.12						.08			.38	.18	.36		.16				.12	.14	.08	.30						2.92
Greenville	do		T.	.11	.03	.07						.12				.50	.87	.14	.04				.06	.04	.16		.41						2.55
Griggsville	Illinois		T.	.35		.48							.12		T.	.35	.50	.11	T.	T.			.29	.05	.15		.32	T.			T.		2.72
Halfway	Mississippi			.07	.40	.46	T.					.17	.30			.60	1.07		.13				.18	T.	.70		.37						4.45
Havana	Illinois		.23		.10	.38	.15					.71	.11			.80	.46	T.	.04				.17	.10			.55				.02		3.82
Henry	do			.06	.64	.25						T.				.46	.53	.11	.17				.20	.25	.08	.08	.43				.02		3.28
Hillsboro	Mississippi					T.	.30	1.12	.10				.04			.45	1.85	.42	.20					.15	.18		.30	.08					5.19
Joliet	Illinois			T.	.71	.18	.05					.09				.16	.25	.06	.13				.94	.15	.06	.40	.29				.34		3.81
Kishwaukee	Mississippi			.15	.33	.72	.05					.28				.40	.45	.03	.11				.14	.40	.13	.19	.16	.03		T.	.27		3.84
La Grange	Illinois				.24	.14	.05					.21	T.			.24	.27	.07	.16				.78	.24	.14	.29	.30	.01			.33		3.47
La Harpe	do			.14	T.	.56	.53		T.			T.	T.		T.	.48	.16	.08	.04	T.			.13	T.	.06		.19				T.		2.37
Lanark	Mississippi			.22		.20	.44					T.				.40	.38	.10	T.				.27	.23	.07	.10	.43	.03			.14		3.01
La Salle	Illinois			.04	.49	.09	.01					.35			.32	.09	.57	.03	.36	T.			.35	.10	.04	.39	.07				.48		3.78
Lincoln	do			.05	.05	.58	.12					T.	.09			.68	.58	.05	.10				.39	.02	.35	.50	T.						3.56
Loami	do			.30		.75	.10					T.	T.			.85	.35	.10	T.				.20	T.	.15	T.	T.						2.80
Martinton‖	do		.08	.28	.10	.14										.20	.22	.22	.10				.28	.10	T.	.25	.10				.20		2.27
Mascoutah	Mississippi			.58		1.06	T.					.30	.10			.62	1.45	.08	.07					T.	.16		.20						4.62
Minonk	Illinois			.05	.20	.26	T.					T.	T.		T.	.92	.51	.04	.41	T.			.40	.24	.12	.14	.31				T.		3.63
Monmouth	Mississippi			.16		.47	.52						.01		.05	.24	.35	.26	.05				.12	.06	.07	.03	.29	.01			.22		2.91
Morrison	do			.22	T.	.14	.30					.82	.22			.17	.37	.10	.03				.24	.43	.21	T.	.37				.47		4.09
Morrisonville	Illinois			.10	.10	.97	.08								.61	*	.70	.07	.08				.21	T.	.10		.41	T.					3.43
Mt. Vernon‖	Mississippi				.11	.38	.06					.02	.45			.40	.50	.29	.15	.03				.26	.22	.02	.38	.16					3.43

TABLE 2.—*Daily precipitation for April, 1910. District No. 5*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Illinois—Cont'd.																																	
Oregon	Mississippi			.33	T.	.20	.20					.05	.01			.20	.65	.20	.05				T.	.30	.30	.45	.25				.55		3.74
Ottawa	Illinois				.53	.18	.06									.26	.50	.03	.49				.35	.34	T.	.20	.34					3.28
Pana	Mississippi			.07	T.	.45	.07									.85	.82	.10	.16	.03			.14	.01	.25		.51	.02				3.49
Peoria	Illinois		T.	.03	.36	.30	.02					.02	T.		.50	.31	.50	.10	.09	.01			.28	.14	.04	.35	.10				.41		3.56
Pontiac	do			.07	.45	.34	.08									.09	.60	.02	.55	.08			.50	.10	T.	.36	.76	.05			.02		4.07
Riley	Mississippi			.02	.26	.05	.07					.15				.01	.73	.01	.11				.56		.42	.41	.11	.11			.30		3.32
Rockford‖	do			.05	.45	.23	.51	.04				.16				.23	.02	.52	.09	.01		.06		.33	.14	.02	.33	.04			.27		3.50
Rushville	Illinois		.35	.15		.55			T.			.08			.25		.40	.04				.18	.30	.42		T.				.10		2.82
St. Charles	do			.09	.48	.16	.05					.45				.15	.52	.03	.10				.43	.30	.30	.14	.37	.02		T.	.22		3.81
St. Peter	Mississippi			.25	T.	.21	.07					.07				.21	.28	.09	.06				.10	T.	.15		.38					1.87
Springfield	Illinois		T.	.16	.26	.18	.04					.21			.30	.21	.44	.07	.02	T.			.38	.14	.03	.21	.16	T.				2.81
Streator‖	Illinois			.10	.84	.14	.06									.30	.50	.36	.20	.26	T.			T.	.78	.10	.50	.06					4.20
Sullivan	Mississippi			.06	.15		T.									.75	.70	.07	.21	T.			.24	.20	.10		.70					3.18
Sycamore‖	do			T.	.35	.33	.05						.20			.07	.35	.50	.10	.15				.60	.10	T.	.73	.25					3.78
Tilden	do			.26		.55	.06					.20	.13			.56	.65		.10	.01			.07	.01	.24	.01	.37	.01					3.23
Taskilwa	Illinois			.15	.05	.26	.03					T.				.51	.37	.13	.11	T.			.20	.30	.10	.06	.36				.03		2.66
Walnut	Mississippi			.21		.15	.05									.40	.33	.13	.10				.30	.19	.08	.13	.33				.02		2.42
Warsaw‖	do		.16		.27	.74						.01			.81		.28	.06	.04				.01	.12	.05	.27							2.82
White Hall	Illinois		.03	.22		.67	.05					.06				.62	.42	.15	.10	.01			.23	.10	.30	.03	.35						3.34
Windsor	Mississippi			.13		.15	.05					T.				.84	.67	.09	.10	.02			.20	.03	.05		.50						2.83
Winnebago	do			.18	.19	.87	.37					T.				.39	.52	.15	.15				.25	.35	.20	.35	.25				.34		4.56
Yorkville	Illinois				.05	.05	.01					.20	.20			.20	.50	.10	.50	.05			1.00	.50	.10	.50	.10	.05			.05		4.16
Zion	Mississippi		.21			.35	.40								.34		.08	.49						.50	.20	.10							4.16
																																2.67

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 8, Upper Mississippi Valley.*

Date.	North Dakota.												Minnesota.											
	Bottineau.‡‡		Devils Lake.		Lisbon.‡‡		Minot.‡‡		Pembina.‡‡		Collegeville.		Crookston.‡‡		Grand Meadow.		Montevideo.‡‡		Moorhead.		New Ulm.‡‡		Pine River Dam.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	56	32	55	38	54	37	58	29	60	36	62	39	53	30	64	34	62	35	56	31	64	37	61	33
2	63	46	62	46	56	38	63	38	63	41	70	37	72	37	73	46	77	38	73	36	74	38	71	38
3	63	33	60	34	58	34	63	37	58	38	69	53	57	36	74	47	66	31	72	40	77	46	78	38
4	58	36	56	36	54	36	58	36	56	36	64	43	52	36	68	46	68	36	68	36	72	44	72	36
5	59	30	58	30	60	37	63	32	64	35	74	34	58	35	72	36	70	35	69	36	74	36	74	36
6	59	31	58	33	60	37	62	36	63	36	75	31	60	36	73	38	73	36	72	36	75	36	75	36
7	62	34	60	36	62	38	72	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
8	62	31	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
9	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
10	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
11	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
12	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
13	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
14	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
15	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
16	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
17	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
18	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
19	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
20	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
21	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
22	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
23	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
24	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
25	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
26	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
27	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
28	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
29	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
30	62	30	61	36	62	38	71	38	66	40	78	46	62	39	74	46	74	38	74	38	78	40	78	40
Mns	61.0	30.6	59.3	30.1	63.0	31.3	66.0	32.3	65.9	30.6	62.7	37.6	54.1	32.1	64.5	36.8	63.7	37.5	60.8	32.2	66.0	37.0	61.3	33.8

Date.	Wisconsin.										Iowa.													
	Delavan.		Eau Claire.		La Crosse.		Madison.		Mauston.		Spooner.		Wausaw.		Algona.		Cedar Rapids.‡‡		Charles City.		Davenport.		Des Moines.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	72	38	64	43	65	44	67	44	66	43	59	37	64	43	63	35	64	41	65	35	70	44	72	46
2	74	46	74	46	76	47	78	46	73	46	70	43	69	46	66	38	68	44	74	40	74	44	74	46
3	76	55	77	55	77	55	76	55	76	55	69	46	74	46	70	45	69	46	77	46	77	46	77	46
4	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
5	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
6	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
7	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
8	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
9	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
10	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
11	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
12	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
13	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
14	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
15	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
16	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
17	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
18	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
19	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
20	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
21	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
22	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
23	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
24	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
25	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
26	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
27	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
28	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
29	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
30	74	46	74	46	74	46	74	46	74	46	69	46	74	46	70	46	70	46	74	46	74	46	74	46
Mns	62.4	37.0	65.8	37.2	63.9	38.1	59.9	38.0	65.0	37.2	60.4	31.0	64.4	36.2	65.8	38.6	63.9	39.0	63.3	37.2	62.8	41.3	65.3	41.2

Date.	Iowa.												Illinois.											
	Dubuque.		Keokuk.		Oskaloosa.		Ottumwa.		Sioux City.		Waterloo.		Cairo.		Carlinville.		Charleston.		Chicago.		Dixon.		Elgin.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	71	42	71	44	68	40	70	42	68	38	68	38	72	46	68	36	70	38	62	36	66	36	64	36
2	72	44	72	46	74	46	74	46	72	46	72	46	74	46	74	46	74	46	74	46	74	46	74	46
3	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
4	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
5	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
6	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
7	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
8	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
9	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
10	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
11	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
12	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
13	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
14	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
15	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
16	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
17	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
18	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
19	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
20	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
21	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
22	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
23	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
24	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
25	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
26	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
27	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
28	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
29	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
30	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46	74	46
Mns	62.8	39.9	65.2	43.5	63.2	39.2	63.3	39.2	62.8	39.2	63.2	39.2	65.8	46.2	65.2	45.2	65.2	45.2	65.2	45.2	65.2	45.2	65.2	45.2

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 5*—Continued.

Date.	Hannibal, Mo.		Laporte, Ind.		Illinois.															
					Cairo.		Greenville.		La Salle.		Monmouth.		Mt. Vernon.		Peoria.		Springfield.		Winnebago.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	71	36	69	36	71	54	73	45	71	41	73	40	75	41	70	37	70	44	72	36
2	73	42	73	40	71	53	70	46	74	45	74	43	75	41	73	41	74	45	74	46
3	73	57	72	48	71	58	72	54	74	54	76	53	78	41	75	54	72	55	71	50
4	77	57	74	55	77	61	73	60	76	56	79	60	78	52	77	60	76	58	79	56
5	57	35	70	52	65	46	67	46	66	42	69	45	67	60	62	43	66	39	68	48
6	59	40	54	32	60	46	54	40	54	38	61	38	52	41	56	37	56	40	56	33
7	69	34	48	31	68	43	69	37	63	33	69	34	71	35	65	33	67	42	65	30
8	77	51	73	34	76	49	77	45	77	44	78	47	78	41	76	48	77	48	76	40
9	74	44	64	40	79	55	79	51	75	46	79	42	81	50	75	43	75	52	75	41
10	80	46	78	44	78	56	82	53	80	47	82	44	81	48	80	44	78	52	81	44
11	71	54	82	44	66	60	70	55	76	44	76	52	78	53	73	46	75	53	81	43
12	63	46	58	34	65	57	65	51	57	35	63	40	65	54	61	41	64	44	56	33
13	71	43	67	34	73	51	75	41	70	32	73	34	72	43	70	35	71	38	70	29
14	72	54	79	42	81	57	79	53	78	43	77	46	79	48	78	49	78	49	77	35
15	71	48	.....	.....	80	60	78	57	75	52	73	53	78	57	75	50	70	53	75	55
16	48	33	.....	.....	64	44	64	39	52	35	64	33	60	54	50	35	53	35	60	33
17	37	29	.....	.....	59	43	42	35	40	33	35	28	56	35	39	32	40	32	37	30
18	40	30	39	31	47	38	40	33	41	30	43	28	44	35	42	29	39	31	46	28
19	44	40	39	34	55	38	55	34	49	36	43	36	57	34	48	35	50	34	46	37
20	66	32	48	34	60	41	64	37	62	34	67	33	65	38	63	33	64	36	61	31
21	72	42	64	33	74	45	74	40	68	36	71	38	73	36	69	34	69	40	68	33
22	65	36	65	35	70	48	69	45	62	35	62	45	73	40	59	35	69	39	63	41
23	36	27	37	27	50	36	46	29	35	22	48	25	45	32	35	23	39	25	45	21
24	39	24	38	25	40	28	42	25	36	21	38	20	41	27	39	22	40	22	36	15
25	43	33	41	31	51	34	46	31	42	32	42	30	55	28	42	33	42	34	39	30
26	59	38	48	31	46	38	47	36	50	37	60	39	50	33	50	38	50	38	49	33
27	74	43	55	35	63	46	63	45	62	46	74	44	61	37	66	47	63	48	67	45
28	83	54	73	39	74	46	77	44	81	50	84	50	79	46	80	47	80	48	81	49
29	92	63	72	44	84	58	86	61	88	62	91	63	86	41	89	59	89	61	87	60
30	74	56	71	42	81	64	85	61	72	44	81	51	82	59	72	47	77	52	73	45
31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Means	64.3	42.3	61.1*	37.3*	66.6	48.4	66.1	44.3	63.5	40.2	66.8	41.1	67.8	42.6	63.6	40.3	64.4	42.9	64.5	38.3

Climatological Data for April, 1910.

DISTRICT No. 6, MISSOURI VALLEY.

J. WARREN SMITH, District Editor.

GENERAL SUMMARY.

The month of April was very warm and dry over most of the Missouri Valley.

During the first part of the month 3 low-pressure areas and 2 high-pressure areas of moderate intensity moved across this district from the northwest and generally fair and mild weather continued.

A large and well-defined low-pressure area moved northeasterly across the district on the 13-15th with general showers and higher temperature, and was followed by an area of high pressure that came from the Pacific coast and spread down the eastern Rocky Mountain slope, accompanied by much cooler weather. Sleet fell in Montana and the western Dakotas, and snow in the eastern part of the district.

This depression developed backward into the upper Mississippi Valley on the 17th, and an area of high pressure moving in from the northwest, the temperature was carried to freezing over most of the district on the morning of the 18th and in the central States on the 19th.

On the 19th another low-pressure area came into the district from the northwest. It spread southeasterly and was centered over Kansas on the morning of the 21st, Missouri on the 22d, and Lower Michigan on the 23d. In the meantime an area of high pressure had moved from the north Pacific eastward and was centered over Manitoba on the morning of the 23d and the temperature was at freezing over a large part of the Missouri Valley.

The depression then increased in intensity and remained nearly stationary for 24 hours, and as a result, the cold winds from the high were drawn rapidly down into the Mississippi Valley. The temperature was down to 25° at St. Louis on the morning of the 24th, and was several degrees lower than has ever before been recorded so late in the season in a series of observations covering 74 years.

The low moved southeastward on the 24th and snow continued in Missouri on the 24th and 25th. It then developed westward into the central Mississippi Valley and rain fell in the lower Missouri Valley on the 26th.

A well-defined low-pressure area came into the upper Missouri Valley from the northwest on the 26th and, moving southeastward on the 28th and 29th, was accompanied by unseasonably high temperatures. At many stations the highest temperature ever experienced in April was recorded during the passage of this depression, thus, in less than 1 week, breaking the record for both the lowest and the highest temperature at many points.

The sunshine was generally above the normal. The prevailing wind was from the west in Montana, Wyoming, and Colorado, and from the northwest in the other States. The wind movement was above the normal and some damage was done through the uncovering and blowing out of small grains and the filling of newly constructed drainage ditches. The wind reached a velocity of 65 miles an hour at Sioux City, Iowa, and 56 miles an hour at Lincoln, Nebr., on the 23d. The section director of Kansas reports trains delayed by high wind on the 23d, and states that, with one exception, the wind movement was greater than for any April in 24 years.

TEMPERATURE.

The average temperature was above the normal throughout the district, except in the extreme lower Missouri Valley. In most of the States the mean temperature for the month was higher than ever before recorded in April with 1 or 2 exceptions, and the maximum temperature was the highest on the 26th, 27th, or 28th that was ever known before in this month. The highest temperature was 106° at Ewing, Nebr., on the 28th. The thermometer registered over 90° in each of the States and 100° or above in South Dakota, Nebraska, and Kansas. The lowest temperature was −3° at South Pass City, Wyo., on the 4th. It fell to −1° in Colorado, but the minimum was above zero in all the other States and was 24° in Missouri.

PRECIPITATION.

The precipitation was generally below the normal, and was much below in eastern Nebraska, northern Kansas, and western Iowa. It was the driest April in Nebraska in 34 years and the driest in Kansas in 24 years. In southeastern Nebraska the average rainfall was less than 0.1 inch where the normal for the month is from 2.5 to 3.0 inches. The greatest monthly precipitation was 6.17 inches at Mill Creek, Mont., and the greatest fall in 24 hours was 2.27 inches at Warrensburg, Mo., on the 5th.

The snowfall was generally less than usual in the mountain districts, but it fell much later than usual in the eastern part of the watershed. The heaviest monthly snowfall was 37.0 inches at Hardy Ranger Station, S. Dak. The greatest snowfall in Colorado was 32.4 inches and in Wyoming 31.0 inches. The greatest fall in Kansas was 1.0 inch and in Missouri 4.0 inches.

RIVERS.

The larger rivers of the district were all much below the flood stage throughout the month. At the close of the month the Mississippi at St. Louis was about 4 feet below the normal. The fall in the river was so gradual that the current scoured the channel, as is usual in such cases, the channel deepening as the water fell, hence boating interests were not affected by the low stage.

In the upper rivers of the watershed the melting snow caused about the normal flow, but owing to the lack of general rains the streams were not unusually high. The regular spring rise in the upper Missouri set in rather earlier than usual and made necessary the suspension of work on dams in the river near Helena during the latter portion of the month.

MISCELLANEOUS.

The warm, dry weather of the first of April, following the unprecedented warmth of March, caused a rapid advance in vegetation and farm work. Damage was done by lack of rainfall and high winds in the central part of the district, but generally the soil was sufficiently moist for grain and for plowing and planting. The cold, stormy weather of the middle of the month, however, and the freezing temperatures of the second and third decades, delayed farm work, checked vegetation, and practically killed the fruit crop throughout the southeastern part of the district.

Wyoming.—The warm weather melted all of the snow in the foothills and the lower mountains, but as the precipitation for the month was below the normal the streams were not unusually high. In the Medicine Bow Mountains all the snow had disappeared below 8,500 feet, but at 11,000 feet there were still about 52 inches at the close of the month.—*W. S. Palmer.*

Montana.—The frost was out of the ground and farm work was in progress during practically the entire month. At the close vegetation was from 2 weeks to a month further advanced than usual. Severe thunderstorms occurred in Fergus County on the 5th. The warm weather, with the light April snowfall, tended to reduce the snow supply in the mountains and render the water supply prospect less favorable than at the close of the preceding month. The consensus of opinion is that there will be rather less than the normal run-off for most streams during the coming irrigation season. Sheepmen report the flocks to be in good condition and the loss in lambing thus far merely nominal. This was one of the most favorable Aprils for lambing in Montana's sheep industry. Prairie fires were reported from several points in Dawson County during the first decade of the month. The unusually heavy growth of grass last year, together with the dry weather of

the current April, rendered conditions very favorable for prairie fires. The loss from these fires was confined to hay, range, and a few ranch buildings.

Steam-shovel operations were resumed on the St. Mary Project, Teton County, on April 12, the frost being out of the ground at that time. No time was lost on account of the weather during the remainder of the month.

Severe thunderstorms occurred in portions of Fergus County on April 5. Steven Strouf, who was working in his field 7 miles from Stanford, was killed. Near Kendall 3 horses were killed and the driver stunned. April thunderstorms of such severity are rare in this section.

The usual spring rise in the Missouri River made it necessary to suspend work on the Hauser Lake and Holter dams near Helena during the latter part of the month. The rise occurred rather earlier than usual this season, although the spring rains have been abnormally light.

Reports from flockmasters over the State are unanimous to the effect that this spring has, so far, been extremely favorable for the sheep industry. There has been practically no snow over the ranges and no severe storms have occurred. The warm weather has been favorable and the grass is from two weeks to a month further advanced than normal. Sheep are generally in excellent condition for the lambing season. Some lambs were dropped in April, under the most favorable conditions, but the lambing season is principally in May in this latitude.

The dry weather of April has caused some anxiety about the growth of grass during the coming months. The ranges are not as yet suffering, but wet weather during May and June will be required to carry them through the summer season.

Mr. F. F. Smith, United States Reclamation Service, reports that weather conditions on the Fort Shaw Unit have been exceptionally favorable for all kinds of construction work during the month of April, 1910. Only one light shower occurred. The temperature ranged from 26° to 88°.

At Glendive preparations for the coming irrigation season were carried on during the month. The grain crops throughout the valley are well started and large areas of sod are being broken.—*R. Frank Young.*

North Dakota.—The unusually high average temperature was principally due to high maximum temperatures.—*Orris W. Roberts.*

South Dakota.—While there was some delay and interruption occasioned by disagreeable and stormy weather, it was on the whole more favorable for farming, mining, railroad, and engineering work than is usually experienced in April. The grass on the ranges afforded good pasturage, and owing to the mild weather in March and the first of April vegetation was unusually advanced for the season. As a result the freezing weather after the 10th caused serious damage to tree and bush fruits and to the foliage of trees. The James and Missouri rivers were somewhat higher than usual for April, but the other streams, including those in the Black Hills, were about normal.—*S. W. Glenn.*

On the Belle Fourche Project there are ditches and laterals with sufficient water supply for about 50,000 acres. The water supply is sufficient for this season of the year,, but there is being stored in the Belle Fourche Reservoir about 50,000 acre-feet for use when the water supply falls off, which will probably not need to be drawn on until July 15.—*Chief Engineer, United States Government Irrigation Project, Belle Fourche, S. Dak.*

Altogether it has been about a normal Black Hills April. Streams about normal, with some snow banks on north sides of hills yet to melt, though not enough for an increase in water that will be noticeable.—*Timekeeper, Homestake Mining Company.*

* * * We experienced no trouble in the operation of trains, with the exception of a period during April 16, 17, and 18, between Watertown and Gettysburg, where several trains were annulled on account of a severe snowstorm. * * * We experienced no trouble with washouts. * * * —*Superintendent, Dak. and Minn. Div. C. & N-W. R'y, Huron, S. Dak.*

The weather for the month of April was favorable for live stock, but hard on timber and medium for agriculture.—*Superintendent Crow Creek Indian Agency, Crow Creek, S. Dak.*

The weather for the month of April has had no material effect either way on game and fish, to the best of my knowledge. Hunting was not the best up to the 10th, on account of the warm weather in March, causing all the waterfowl to go farther north earlier than usual in this section.—*State Game Warden, Watertown, S. Dak.*

Colorado.—The days were warm and the nights generally cool. Frosts were common and fruit interests suffered, especially during the night of the 15–16th. The snowfall was lighter than usual for April, and at most of the lower level stations there was practically none.—*F. H. Brandenburg.*

Nebraska.—The remarkably warm weather of March caused vegetation to start unusually early and much injury was done by the freezing weather in April, which was but normal and seasonable. Fruit was very largely in bloom and was seriously damaged, and only a small fraction of a normal crop can be expected. Winter wheat was considerable killed by unfavorable winter conditions and the continued dry weather further reduced the prospect of a crop. The dry soil caused oats to germinate unevenly and the growth was exceedingly slow. The soil was moist enough to allow plowing for corn to make normal progress.—*G. A. Loveland.*

Iowa.—The cold spells of the 15–18th and 23d–25th caused immense damage to fruit trees, at that time in blossom. Small grain was damaged by dry weather during the first half of the month and by frequent high winds. Farming operations were further advanced than usual on April 1. Practically all small grains were seeded before the middle of April, and nearly all the corn ground was ready for the planter by the close of the month. Considerable corn was planted during the second week, but the work was suspended after the 15th on account of cold weather. All streams were below the normal. There were no destructive storms reported and the number of thunderstorms was less than the average for April.—*G. M. Chappel.*

Kansas.—This is the 6th successive month with unusual weather conditions. It was the driest April in 24 years, and but three Aprils in the period have been warmer. It is the second time that the prevailing direction of the wind was from the northwest, and there has been but one April with a greater wind movement. The rivers continued low and nearly stationary. The mild, dry weather permitted farming operations to be carried on uninterruptedly, but the temperature following the 15th gave a decided check to the growth of all vegetation. The weather conditions were favorable to building operations. Transportation interests were not adversely affected by the weather, except that the gale of the 23d delayed railroad trains more or less.—*T. B. Jennings.*

Missouri.—April, 1910, was decidedly unfavorable from the view point of the agriculturist, and also from the physiological side. It is interesting to note that the mean temperature was more than 1° cooler than that for March, and that this phenomenon has occurred but twice in about 30 years. The warm weather during March and the first half of April advanced fruit and vegetation fully a month ahead of the average and the fruit was particularly promising. The freeze of the 24–25th caused an estimated loss of $2,500,000 to the fruit crop in this State. The warnings issued by the Weather Bureau were generally heeded and orchards were heated freely during the nights of the 23d and 24th, but the continued low temperature, rather high wind, and driving snow compelled the orchardists to abandon the work. A thunderstorm of marked energy, partaking somewhat of the characteristics of a tornado, occurred at Macon during the afternoon of the 4th. There was some local damage to buildings, trees, fences, etc., but no lives were lost.—*George Reeder.*

The Reclamation Record states that the irrigation season opened on the Sun River Project, Montana, April 11; Shoshone Project, Wyoming, April 17; North Platte Project, Nebraska–Wyoming, April 17; and on the Huntley Project, Montana, on April 26. The date for the Sun River Project was about one month earlier than usual.

SNOW CONDITIONS IN THE MOUNTAINS IN MONTANA AND THE PROSPECTIVE WATER SUPPLY.

In general, the snowfall during the month was much less than normal on the high ranges, the warm weather materially lessened the stock of winter snow, and considerable anxiety prevails concerning the flow during the remainder of the season. The stream flow during April was generally above normal, due to the unusually warm weather. In a majority of the streams the flow continued undiminished at the end of the month.

Reports would show conditions to be favorable over the watershed of the Musselshell and a portion of the Jefferson River Basin. At scattered points along the Divide, on small tributaries of the Missouri, conditions are reported to be favorable for the normal run-off during the remainder of the season.

The consensus of opinion is that the snow supply is below normal and that the later run-off will be below normal over the upper headwaters of the Jefferson and the tributaries to the stream from the north, the Yellowstone, lower tributaries of the Big Horn, Gallatin, Milk River, Sun River, and the upper Madison River tributaries.

THE FLOOD OF JULY 10-20, 1909, IN THE LOWER MISSOURI VALLEY.

By J. WARREN SMITH, M. S.

A very disastrous flood occurred in the lower Missouri Valley in July, 1909. At Glasgow, Mo., the river was only 0.8 foot below the high water mark of June 5, 1903, and the lower Missouri River was generally higher than ever before recorded in July.

The Marais des Cygnes River in eastern Kansas was higher than ever before recorded, and the Grand River and its branches in northern Missouri had the worst flood in its history. In the Grand River Valley the water rose with such remarkable rapidity that very little could be done to save property, and much loss resulted.

The flood in the Marais des Cygnes and Grand rivers was due entirely to heavy local rains, while the high water in the Missouri was caused by the flood of water from the smaller rivers and streams pouring into a river already bank full.

The flood was so unusual in many respects that it has been thought wise to show the rainfall in detail by means of charts, as well as the rapid rise in the rivers by means of the graphs in figs. 5 and 6.

The river gage stations in the lower Missouri River and its tributaries are shown on the accompanying figures. Arlington is on the Gasconade River, Bagnell and Osceola on the Osage, Ottawa on the Marais des Cygnes, the main branch of the Osage, Brunswick is near the mouth of the Grand River, Trenton on the Thompson Fork of the Grand, and Pattonsburg on the main fork of the Grand River below the mouths of the East and West forks.

There were no river gage stations in operation at the time of the flood at Brunswick, Trenton, Pattonsburg, Osceola, or Ottawa, but stations have been established since and the height of the water during the flood determined.

Fig. 1 shows the rainfall in the eastern part of the Missouri watershed on July 3 and 4. It will be seen that the fall was moderately heavy in the upper James, Big Sioux, Floyd, and Little Sioux valleys in South Dakota and Iowa, and in the lower Platte in Nebraska. Heavy local rains fell also in North Dakota and Montana, although not over large areas.

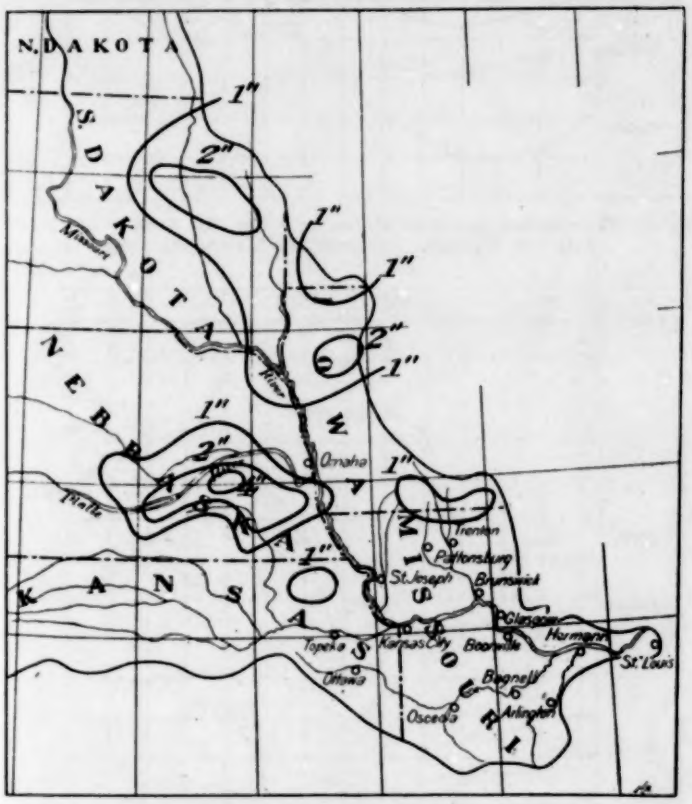

FIG. 1.—Rainfall over the lower Missouri Valley, July 3 and 4, 1909.

Fig. 2 shows the rainfall for the 5th and 6th, the greatest amounts occurring in northern Missouri, southwestern Iowa, southeastern Nebraska, and northeastern Kansas. At Bethany, Mo., on the Big River, a branch of the Grand that flows in below Pattonsburg, the rainfall for the 2 days was 10.71 inches. It was over 7 inches at Grant City, Mo., and Lamoni and Mount Ayr, Iowa, in the upper Grand Valley, and 8.40 inches at Allerton, Iowa, near the head of one of the branches of the Chariton River and of the Locust and Yellow forks of the Grand.

Fig. 3 shows the fall for the 7th and 8th, and that it was heaviest in eastern Kansas and western Missouri in the Marais des Cygnes Valley. The rainfall at Osage City, Kans., for the 2 days was 10.03 inches, and at Amoret, Mo., 8.24 inches.

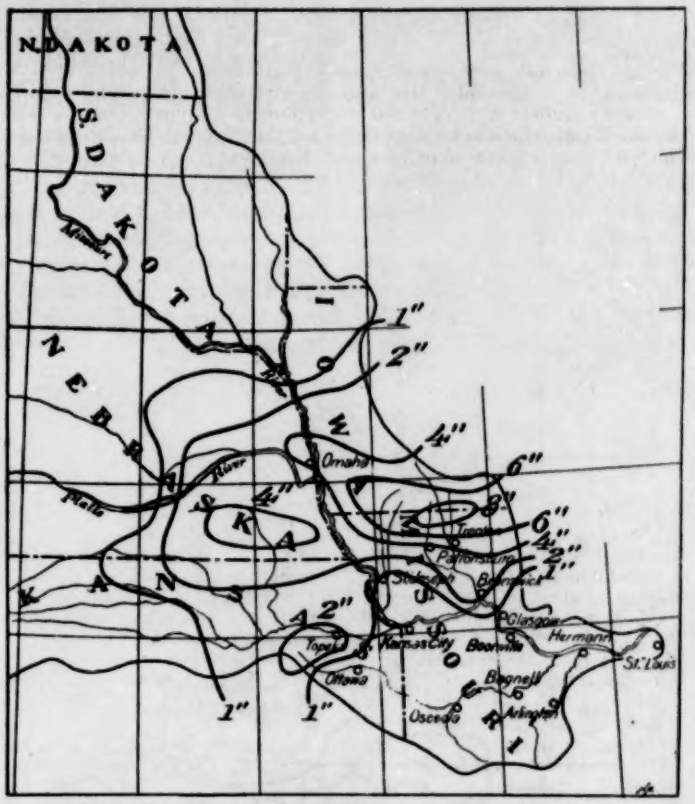

FIG. 2.—Rainfall over the lower Missouri Valley, July 5 and 6, 1909.

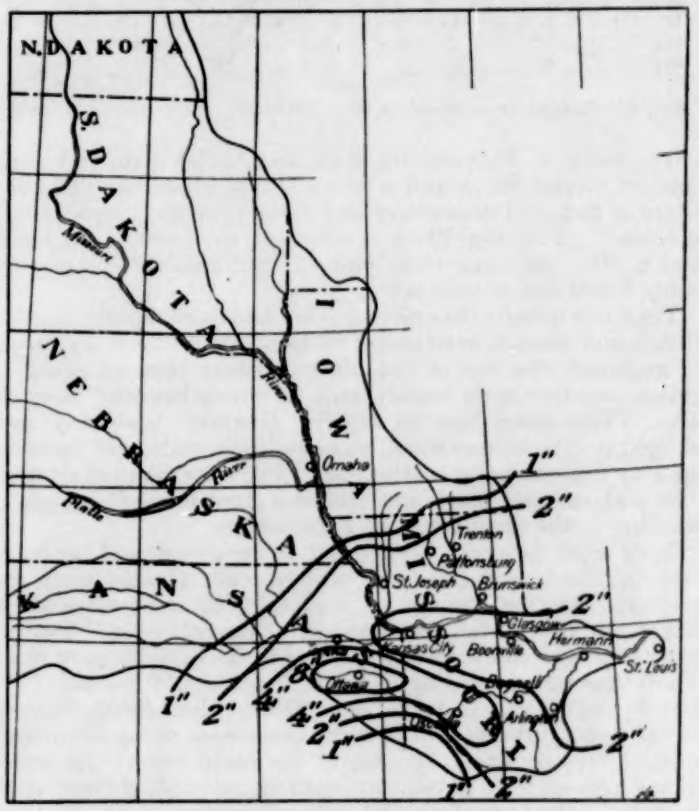

FIG. 3.—Rainfall over the lower Missouri Valley, July 7 and 8, 1909.

Fig. 4 shows the rainfall on the 10th and 11th. There was very little rainfall on the 9th, but on the 10th and 11th the fall was moderately heavy in the Osage Valley, as may be seen from this chart.

One man, in a large meadow near Trenton, saw the flood of water moving toward him in a wave 2 to 3 feet high across the whole meadow. He thought at first it was the water pouring over a ridge in the field, but soon saw it was advancing rapidly.

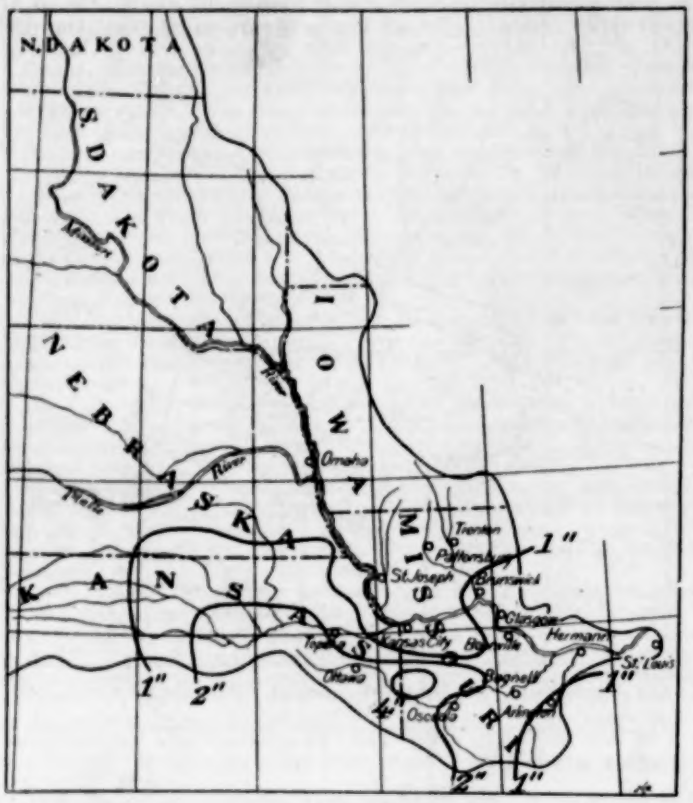

FIG. 4.—Rainfall over the lower Missouri Valley, July 10 and 11, 1909.

The town of Pattonsburg is on an alluvial plain in a large bend of Grand River and is about 2 miles from it. The Big River is east of Pattonsburg and flows into the Grand below the town. The Big River is very apt to overflow its banks and a dike has been built east of Pattonsburg to keep the rising water out of that town.

Big River usually rises more quickly and more rapidly than the Grand and when it went out of its banks in the flood and began to approach the top of the dike as many men as could be gotten together were hastily sent to strengthen and raise the dike. The water rose so rapidly, however, that they were obliged to discontinue work, abandon their tools, and leave the dike to prevent being washed off. The water poured over the dike and railroad track and caused a great deal of damage by washing in the main street of Pattonsburg.

Very soon, however, the Grand River overflowed its banks and the backwater from this river spread into the town and prevented further damage by washing from the waters of Big River. Many of the residences in Pattonsburg are but one story in height and the water reached to the eaves in most cases. There was not a building in town that was not flooded. The people had no chance to move or protect their furniture, even in the 2-story houses, and in many cases were not able to reach other places of safety because of the rapid rise of the water. Many persons were forced to remain on the roofs of their dwellings, or in the tops of near-by trees all night.

The water overspread the entire town from 4 to 12 feet in depth, but south of this town, where the valley is narrower, it was from 20 to 30 feet deep.

A study of individual reports from cooperative observers shows that the excessive rainfall progressed from north to south, and probably at about the rate of the flow of the water, at least over the upper watersheds. (See figs. 1 to 4.)

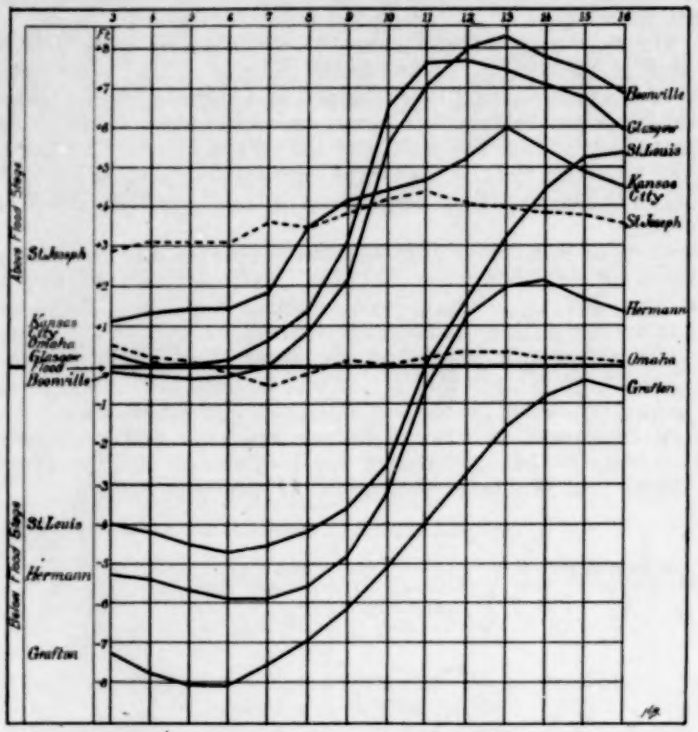

FIG. 5.—River stages, amounts above or below the flood stage in feet July 3 to 16, 1909. Missouri and Mississippi rivers.

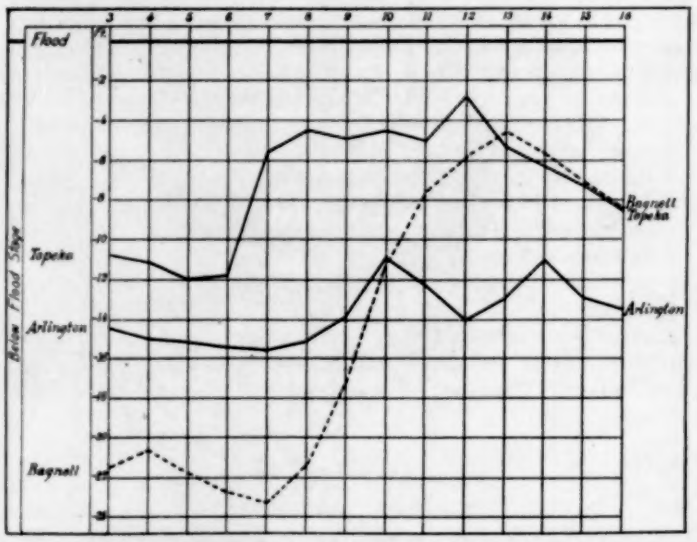

FIG. 6.—River stages, amounts above or below the flood stage in feet, July 3 to 16, 1909, on the Kansas, Osage, and Gasconade rivers.

At Trenton, Mo., the highest water was 27.8 feet on the 6th, 7.8 feet above flood stage. At Pattonsburg it was 35.6 feet, 12.6 feet above flood, on the 7th. At Brunswick, however, the highest water was not until the 9th, although the water rose very rapidly before that date and poured over the bank and into the Missouri River like a great cataract along about a half-mile front. The highest water at Brunswick was 23.0 feet, or 13 feet above the flood stage. At each of these places, and in general in the Grand watershed, the water was the highest ever known.

The rainfall over the upper part of the Grand River Valley was very heavy indeed, but it seems to the writer that the re-

markably rapid rise in this river and the extreme height that it reached may be explained, in part, by the fact that the excessive rainfall moved down the river valley, accompanying and intensifying the crest of the flood.

The rainfall at Osage City, Kans., in the upper Marais des Cygnes, was nearly as heavy as at any station in the Grand Valley, and although the water was the highest ever known at Ottawa, Kans. (35.3 feet, or 11.3 above the flood stage), it was not so high at Osceola, Mo., as has been before recorded, and at Bagnell it did not reach to within 4 feet of flood stage. To be sure the area of excessive rainfall did not cover so large a per cent of the watershed, but it is plainly shown that the area of excessive fall moved across instead of down the valley.

The weather maps during the period of heavy rains show an area of moderately high pressure spreading from the northwest slowly over the Lake region and middle Atlantic coast, while a poorly-defined depression moved over the central Rocky Mountain region to western Kansas on the 4th, then held fairly stationary until the 7th. It was then met by another poorly-defined area from the northwest, after which it dissipated.

A report of the damage done by the flood, charts of the movements of the high and low pressure areas, and the daily rainfall figures may be found in the MONTHLY WEATHER REVIEW for July, 1909, and need not be repeated in this article.

In figs. 5 and 6 graphs are given showing the rise at the different river gage stations at St. Louis and Grafton, and on the Missouri River and its lower tributaries. Instead of showing the actual river gage readings, the figures show the distance below or above the flood stage at each point, from July 3 to 16.

TABLE 1.—*Climatological data for April, 1910. District No. 6, Missouri Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Arapahoe	Fremont		2																	David Malloy.
Barnum	Johnson	5,500	5								2.10		1.00	T.	4	22	5	3	w.	Thomas Freegaurd.
Basin	Big Horn	3,862	11	54.4	+ 6.7	85	27	21	5	44	0.17	− 0.41	0.11	0.0	3	23	3	4	nw.	O. J. Robertson.
Bennett	Carbon		2																	Chas. C. Young.
Big Creek Station	Albany			40.8		80	28	12	2	51	0.55		0.18	4.6	6	11	11	5	sw.	U. S. Forest Service.
Casper	Natrona	5,101	2																	M. C. Cook.
Cheyenne	Laramie	6,088	39	46.4	+ 4.8	82	28	21	4	42	1.14	− 0.71	0.81	3.7	5	11	14	5	nw.	U. S. Weather Bureau.
Chugwater	do	5,282	9	50.2	+ 7.0	82	28†	20	4	47	0.80	− 0.96	0.60	2.0	2	10	13	2		George Milne.
Clark	Big Horn	4,320	4	54.6		82	26†	23	4	40	1.18		0.39	0.0	5	17	7	6	w.	Chas. A. C. Snow.
Cody	do	5,000	3	51.5		82	26	17	14	42	0.50		0.30	T.	2	16	10	4	w.	F. A. Fish.
Crystal Lake Reservoir	Laramie	6,900	1																	Cheyenne City Engineer.
Dome Lake	Sheridan	8,821	2	39.4		67	27	10	4	35	3.10		1.00	31.0	6	10	17	3	sw.	Chas. Hidlay.
Douglas	Converse	4,793	1																	Henry C. Miller.
Dubois	Fremont	6,909	3	44.2		74	26†	9	15	41	0.54		0.28	T.	2	16	12	2	w.	Dr. F. H. Welty.
Eaton's Ranch	Sheridan	4,600	5	55.6		84	20†	27	4	40	1.70		0.65	0.0	4	21	4	5	w.	F. A. Eaton.
Echeta	Crook	4,200	1								0.90		0.50	T.	5	17	8	5	nw.	M. R. Hunter.
Elk Mountain	Carbon		5								0.93		0.42	17.5	4					Wm. Richardson.
Encampment	do	7,322	1	44.2		72	27	12	4†	39	0.31		0.20	3.0	4	12	10	6	w.	U. S. Forest Service.
Ervay	Natrona		1	47.2		81	27	15	4†	41	1.12		0.50		5	15	7	8	sw.	Frank Jameson.
Fort Laramie	Laramie	4,270	32	51.2		92	28	21	5	51	0.58		0.37	0.0	3	22	8	0	w.	John Hunton.
Fox Creek Station	Albany																			U. S. Forest Service.
Gillette	Crook	4,546	3	52.0		90	27	21	4	44	1.49		1.06	1.5	4	20	7	3		S. D. Perry.
Granite Canyon	Laramie	7,337	5																	Lee A. Boyce.
Hunters' Station	Johnson	8,000	4	41.2		71	27	15	5	40	1.56		0.42	16.0	7	20	4	6	ne.	U. S. Forest Service.
Hyattville	Big Horn	4,632	11	52.4	+ 6.0	87	27	17	4	45					1	14	10	6	w.	Wm. Booth.
Kirtley	Converse		6	48.3	+ 6.3	84	27	21	5	46	0.20	− 1.08	0.20	4.0	1	19	8	3	nw.	D. M. Zum Brunnen.
Kirwin	Big Horn	9,187	2																	C. L. Tewksbury.
Knowles	Crook		1								2.57		1.17	6.5	5					G. A. Knowles.
Lander	Fremont	5,372	18	48.6	+ 6.4	82	27	12	4	46	1.30	+ 1.16	0.75	11.5	6	15	12	3	sw.	U. S. Weather Bureau.
Laramie	Albany	7,188	19	42.6	+ 4.9	76	27	11	16	43	0.95	− 0.13	0.75	9.0	5	13	10	7	nw.	University of Wyoming.
Leo	do	6,878	9	43.6	+ 4.4	77	27	2	4	58	0.63	− 0.27	0.37	5.5	4	17	7	6	w.	C. A. Cowdin.
Lolobama Ranch	Big Horn	7,052	6	43.0	+ 6.4	74	27	11	15	45	0.90	− 0.40	0.60	1.0	3	20	8	2	w.	Mary E. Painter.
Lovell	do		5	52.4		86	27	18	14	50	0.39		0.25	0.9	5	18	3	9	n.	R. Fred Harrison.
Lusk	Converse	5,007	20	46.0	+ 3.6	87	25	20	15	48	0.60	− 0.73	0.30	6.0	2					D. E. Goddard.
Luther	Laramie		1	47.8		84	28	20	16	42	1.00		0.75	4.0	2				nw.	Henry D. Colburn.
Manville	Converse	5,050	1								0.65		0.40	6.0	3	23	5	2	nw.	C. A. Sherman.
Moorcroft	Crook	4,211	7	50.6	+ 6.1	90	27	20	5†	56	0.50	− 0.71	0.20	2.0	4	12	10	8	nw.	James K. Somers.
Moore	Albany	6,000	9	48.6	+ 5.8	82	27	23	4	46	0.86	− 0.71	0.58	0.4	3	10	11	9	w.	Edwin Moore.
Newcastle	Weston	4,319	3	51.6		91	27	21	17	53	0.75		0.45	3.0	2	20	8	2	n.	Dr. S. W. Johnson.
Pathfinder	Natrona	5,735	4	49.6	+ 4.9	82	27	19	15	49	1.41	+ 0.30	0.90	9.0	2	21	8	1	sw.	U. S. Reclamation Service.
Phillips	Laramie	4,900	7	49.2	+ 4.7	87	27†	20	3†	52	0.40	− 1.10	0.40	4.0	1	16	7	4	nw.	Mrs. Arthur Rugg.
Pine Bluff	do	5,038	9																	Sumner Miller.
Powell	Big Horn	4,376	3	52.8		85	27	18	4	48	0.22		0.10		3	18	7	5	n.	U. S. Reclamation Service.
Rawlins	Carbon	6,748	8	46.3	+ 3.8	77	27	17	4	45	0.41	− 0.63	0.23	4.5	4	18	11	1	w.	C. J. Ehrenfeld.
Riverton	Big Horn	4,960	2	50.0		85	27			51	1.33		0.98	T.	3					Fred L. McGiffin.
Saratoga	Carbon	7,300	12	46.0	+ 5.2	79	28	11	16	48	1.20	− 0.66	0.33	4.0	3	10	12	8	e.	Saratoga & Enc'pm'nt Ry.
Sheridan	Sheridan	3,790	15	50.8	+ 7.3	85	28	22	5	53	1.19	− 0.44	0.62	0.8	7	18	5	7	nw.	U. S. Weather Bureau.
Shoshone Dam	Big Horn	5,385	4	[illegible]		84	25†	24	4	40						25	3	2	w.	U. S. Reclamation Service.
Soldiers Home	Johnson	4,635	18	52.6[a]	+ 5.8	81[a]	27†	10[a]	3	40[a]	1.45[a]	+ 0.11	0.75[a]	1.0[a]	6[a]	12[a]	16[a]	1[a]	nw.	Geo. L. Courtney.
South Pass City	Fremont	7,873	8	38.4		69	27	− 3	4	45	0.41		0.17	2.8	6	11	11	8	sw.	John Sherlock.
Thermopolis	do	4,350	6	52.8		89	27	18	4	51	0.63		0.49	T.	4	21	7	2	n.	A. L. Duhig.
Upton	Weston		1																	G. E. McPherren.
Valley	Big Horn	6,500	1								0.44		0.25	2.0	3	14	14	2	w.	Jas. L. McLaughlin.
Verona	Sheridan		1								0.84		0.83	0.1	2	14	14	2	nw	O. A. Roode.
Wiley	Big Horn	5,375	1	51.8		81	27†	21	4	36	0.85		0.33	2.0	4	19	7	4	w.	C. D. Marshall.
Wyncote	Laramie	4,207	3	51.4		89	28	19	4	54	0.77		0.65	2.0	2	21	8	1	nw.	U. S. Reclamation Service.
Yellowstone Park	National Park	6,300	22	43.2	+ 6.2	74	26	13	4	39	1.19	− 0.19	0.31	2.1	9	9	15	6	sw.	U. S. Weather Bureau.
(1) Fountain Hotel	do	7,220	4																	U. S. Army.
(2) Grand Canyon	do	7,900	3					7	4		1.66		0.70	13.0	4	19	6	5	w.	Do.
(3) Lake Hotel	do	7,733	6	34.2		65	25	− 4	4	43	1.71		0.60	22.0	5	14	6	10	s.	Do.
(4) Norris Gey. Basin	do	7,525	6	37.7		73	25	− 1	4	47	0.77		0.52	6.0	2	23	0	7	w.	Do.
(5) Riverside	do	6,500	4																	Do.
(6) Soda Butte	do	7,000	5	40.6		73	26	5	4	49	0.98		0.44	2.5	4	21	4	5	w.	Do.
(7) Sylvan Pass	do	7,000	3	41.0		79	24	10	15	54	1.70		0.56	15.0	4	16	10	4	w.	Do.
(8) Thumb	do	7,772	4	34.4		69	26	− 4	4†	53	1.85		1.32	15.0	5	19	9	2	w.	Do.
(9) Tower Falls	do	6,250	1	42.9		77	26	8	4	51	0.38		0.22	0.0	4	19	8	3	nw.	Do.
(10) Upper Gey. Basin	do	7,395	6	38.6		73	25	− 1	4	46						15	8	7	sw.	Do.
Montana.																				
Adams	Dawson		2	51.4		89	20	20	17	45	1.07		0.58	1.1	6	20	6	4	nw.	W. B. Ennis.
Adel	Cascade	5,200	11	49.6	+ 9.4	84	25†	19	4	40	2.81	+ 0.92	1.80	19.5	7	12	8	10	w.	Bessie F. Burch.
Agricultural College	Gallatin	4,700	12	47.4	+ 6.7	81	26	20	4	36	1.86	+ 0.17	0.98	7.0	5	12	14	4	sw.	J. L. McCraw.
Augusta	Lewis & Clark	4,371	12	49.8	+ 7.4	89	25	20	14	57	0.09	− 0.97	0.09	T.	1	22	6	2	w.	C. C. Covington.
Babb	Teton	4,461	4	46.6		84	24	20	30	50	1.57		1.25	0.8	2	7	20	3	sw.	U. S. Reclamation Service.
Bald Butte	Lewis & Clark	6,500									0.46		0.30	4.0	4	11	5	14		Matt W. Alderson.
Big Creek	Park	5,800	2								1.50		0.88		6	8	14	8	s.	Peter Vink.
Big Timber	Sweetgrass	4,072	5	55.2		87	25†	22	1	52	0.66		0.26	0.0	3	16	9	5	w.	W. H. Patterson.
Big Timber Creek	do										0.80		0.32	2.7	10	13	15	2	w.	Do.
Billings	Yellowstone	3,115	15	53.9	+ 5.7	92	25	22	1†	58	1.48	+ 0.24	0.90	0.8	4				w.	U. S. Weather Bureau.
Boulder Nursery	Jefferson	4,920	14	44.0[b]	+ 2.5	79[b]	25†	5[b]	7	57[b]	1.24	+ 0.50	0.52	3.0	5	9[b]	17[b]	2[b]		U. S. Forest Service.
Bowen	Beaverhead	6,060	4	39.6		76	25	13	3	52	0.25		0.12		5	15	10	5		B. B. Lawrence.
Bridger	Carbon	3,664	2	51.5[b]		88[b]	25	12[b]	1	56[b]	0.60		0.38	0.0	3	9[b]	12[b]	7[b]	s.	L. E. Gard.
Broadview Exp. Station	Yellowstone		4	49.8		85	25†	18	1†	55	1.80		0.82	0.1	5	14	15	1	sw.	Thos. S. Hunt.
Busby	Rosebud		5	50.6		85	20	18	4	54	1.44		0.75	1.0	5	17	8	5	n.	G. A. Linschied.
Busteed	Sweetgrass		2	52.8		86	26	11	8	52	1.09		0.50	T.	6	16	9	5	nw.	Thos. H. Busteed.
Butte	Silver Bow	5,716	15	48.5[c]	+ 7.8	83[c]	25	22[c]	15	41[c]	0.20	− 0.91	0.10	1.0	2	11[c]	4[c]	10[c]	nw.	J. R. Warton.
Canyon Ferry	Lewis & Clark	3,644	12	52.2	+ 6.1	86	19†	20	15	50	0.92	+ 0.19	0.48	1.0	5	14	13	3	nw.	A. C. Pratt.
Cascade	Cascade	3,361	5	54.4		91	26	28	1†	58	0.70		0.38	3.0	5	22	7	1	sw.	E. E. James.
Cataract Creek	Jefferson	7,000																		Fred Gerdes.
Chessman Reservoir	Lewis & Clark	5,275	2	44.7		76	25†	19	3†	40	0.83		0.34	5.2	6	20	4	6	sw.	Chas. D. Schmidt.
Chester	Chouteau	3,140	7																	B. B. Weldy.
Chinook	do	2,502	10	55.4[a]	+11.6	94[a]	26	23[a]	15†	56[a]	0.05	− 0.47	0.05	0.0	1	6	17	7	w.	Thos. O'Hanlon Co.
Chouteau	Teton	3,810	6																	H. Van De Riet.
Clear Creek	Chouteau		4	53.2[a]		90[a]	26	24[a]	17	49[a]	0.86		0.30	T.	8	13	14	3	w.	Cortes Sedgwick.
Clemons	Lewis & Clark	4,672									0.17		0.07	3.4	4	7	18	5	w.	Frank Eberl.
Copper	Meagher		5								1.58		0.70	4.0	6	17	7	6	w.	Orville Harris.
Crow Agency	Rosebud	3,041	28																	F. E. Server.
Culbertson	Valley	1,927	8	50.1		92	26	20	1†	50	0.13		0.08	T.	3	8	17	5	nw.	G. H. Coulter.

TABLE 1.—*Climatological data for April, 1910. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Montana—Cont'd.																				
Cut Bank	Teton	3,700	12	50.4	+10.8	87	25†	20	30	50	T.	− 0.99	T.	0.0	0	19	4	7	w.	Chas. N. Thomas.
Decker	Rosebud	3,400	6	51.8		86	26	12	17	53	0.70		0.50		2					Adam Anderson.
Delpine	Meagher	5,000									0.72		0.35	3.5	7	11	16	3	w.	T. B. Holliday.
Denton	Fergus		2																	R. M. Chamberlain.
Dillon	Beaverhead	5,147	13	47.6	+ 4.4	72	10†	22	1	37	0.48	− 1.51	0.13	T.	13	10	6	14	sw.	J. E. Monroe.
Dirty Creek	Meagher	6,000									1.06		0.48	4.1	7	20	8	2	w.	Lewis Cameron.
Dry Creek	Broadwater	5,503																		J. C. Stuart.
Dry Wolf Camp	Cascade	6,000									2.28		1.00	21.5	7	14	8	8	sw.	Mrs. R. J. Eveleth.
East Gallatin River	Gallatin	6,000									2.07		1.03	12.0	5	16	8	6	w.	John Eberhart.
Ekalaka	Custer		10	52.4	+ 8.9	88	20	18	18	46	0.84	+ 0.09	0.45	0.0	3	20	6	4	w.	Wm. Freese.
Elkhorn	Jefferson	6,576	1								1.42		0.52	12.4	13	11	9	10	sw.	James Heagan.
Evans	Cascade	4,900	3																	H. Tharsher.
Fallon	Custer	2,208	6	52.4		90	20†	20	18	57	1.10		0.60	0.0	3	20	6	4	nw.	Mrs. A. C. Gifford
Family‖	Teton	3,950	1	50.8		91	25	24	30	51	T.		T.	T.	0	17	11	2	w.	U. S. Reclamation Service.
Fish Creek**‖	Silver Bow	8,500		42.0		68	24†	14	3	30	1.48		0.86	8.0	3	20	9	1	w.	O. B. Tilton.
Fish Tail Creek	Carbon	5,000									1.31		1.13		4	22	5	3	w.	O. E. Haskin.
Flathead Creek	Gallatin	6,000									4.38		1.65	16.4	6	14	12	4	nw.	L. G. Brown.
Forsyth	Rosebud	2,514	4	54.4		91	25†	24	16	57	1.73		0.63	0.0	5	23	0	7	n.	W. F. Clarke.
Fort Benton	Chouteau	2,630	33	54.9	+10.0	90	23†	28	3†	46	0.95	− 0.22	0.35		4	21	8	1	sw.	Jere Sullivan.
Fort Shaw	Cascade	3,500	22	52.5	+ 8.2	88	25†	24	14	54	0.02	− 0.54	0.02	T.	1	15	11	4	sw.	U. S. Reclamation Service.
Fort W. H. Harrison‖	Lewis & Clark	4,004	6	52.0		87	27	25	1	43						21	7	2	w.	Post Hospital.
Foster	Yellowstone																			E. K. Bowman.
Garneil	Fergus	5,503	1	46.0		82	27	19	1†	43	3.70		1.20	19.0	8	7	12	11	nw.	Thos. E. Scally.
Glendive	Dawson	2,069	20	54.4	+ 8.0	93	27	24	4†	51	1.60	+ 0.50	0.56	T.	4	0	13	17	nw.	W. B. Walker.
Goldbutte	Chouteau		3	50.6		90	26	19	6†	50	0.42		0.17	1.5	4	16	12	2	sw.	J. T. Berthelote.
Graham	Custer		4	50.4[1]		90[1]	20	19[1]	18	53[1]	0.45		0.22	2.0	5	12[1]	6[1]	3[1]		J. S. Rue.
Grayling	Gallatin	6,700	4	38.4		75	25	2	4	53	0.76		0.32	1.0	6	15	6	9	sw.	P. Kersenmacher.
Great Falls	Cascade	3,350	19	55.6	+ 8.7	88	26	28	15	41	1.19	+ 0.10	0.61	T.	6	11	17	2	sw.	S. H. Bauman.
Half Moon Pass	Fergus	6,500									1.75		0.90	1.6	9	4	24	2	w.	Thos. Stigen.
Half Way House	Broadwater	6,000									2.44		0.93	8.3	6	16	11	3	sw.	Gordon Deans.
Harlowton	Meagher	4,165	2	50.2		87	25†	21	15	58	0.70		0.60	T.	2	13	9	8	w.	Joseph Muir.
Hassel	Broadwater	5,200									0.59		0.30	0.0	5	3	24	3	sw.	E. C. Albrecht.
Havre	Chouteau	2,505	30	53.3	+10.6	94	26	23	15	51	0.48	− 0.53	0.21	0.0	7	10	16	4	nw.	U. S. Weather Bureau.
Helena	Lewis & Clark	4,110	30	52.0	+10.0	86	25	27	3	42	0.34	− 0.80	0.22	0.4	8	10	14	6	w.	Do.
Highwood	Chouteau		3								0.78		0.40	11.5	4	12	12	6	sw.	W. S. McCord.
Home Park	Madison		5								1.48		0.47	1.0	7	16	10	4	se.	H. L. Miller.
Huntley	Yellowstone	3,014	4	54.8		90	25	24	1	52	1.72		0.89		3	13	14	3	ne.	U. S. Reclamation Service.
Jones Canyon	Gallatin	6,830									2.03		0.76	24.0	7	21	0	9	w.	Jas. McCune.
Jordon	Dawson		5	50.8		91	25	19	16	51	0.11		0.11	1.1	1	23	2	5	nw.	W. C. Hendesron.
Kleinsmith Creek	Jefferson	6,000	1								0.05		0.03	T.	2	3	26	1	w.	Mrs. E. W. Mills.
Lewistown	Fergus	4,010	13	50.3	+ 7.7	86	19†	21	15	49	1.73	+ 0.26	1.07		5	13	12	5	w.	W. W. Watson.
Livingston	Park	4,488	13	52.8	+ 9.2	89	26	21	1	47	1.25	+ 0.25	0.74	T.	6	17	5	8	sw.	Lewis Terwilliger.
Lodge Pole Creek	Sweetgrass	5,700									1.85		0.85	10.0	4	19	10	1	w.	F. G. White.
Lone Tree	Chouteau		5	55.0		93	26	29	3	51	1.76		0.85	5.0	7	16	9	5	w.	E. Wilson.
Lost Horse Creek	Meagher	5,800									1.47		0.48	3.5	6	19	5	6	w.	C. M. Mason.
Malta	Valley	2,240	3	53.7		92	26	23	16†	47	0.71		0.65	T.	3	21	8	1	w.	U. S. Reclamation Service.
Meadow Creek	Madison	6,700									0.69		0.25	5.3	6	14	9	7	s.	F. E. Parent.
Melstone	Fergus	2,903									1.15		0.90		4					E. J. Parkinson.
Mildred	Custer										1.71		0.55	0.0	4	21	6	3	nw.	Leon B. Clarke.
Miles City	do	2,371	19	56.0	+11.3	90	26	28	17	46	1.35	+ 0.17	0.65	0.4	6	19	7	4	se.	U. S. Weather Bureau.
Mill Creek	Park	5,500	1								6.17		2.04						sw.	W. H. Edick.
Moore	Fergus		3								1.56		0.47	9.0	6	18	12	0	w.	Clyde Grove.
Mudd Creek	Deer Lodge																			Emory Mudd.
Norris	Madison	4,845	4	50.4		88	25†	12	3†	53	1.50		1.05	4.2	4	12	8	10	s.	Madison River Power Co.
Nye	Sweetgrass		2	45.2		78	19†	11	1	51	1.33		0.40	7.2	6	20	4	6	sw.	F. L. Bryant.
Olsen Creek	Jefferson	6,345	1								0.76		0.35	5.0	6	15	7	8	w.	Robt. Olsen.
Pipestone Pass	do	7,000	1								0.95		0.33	1.5	5	11	17	2		Mrs. Theola Kiermeyer.
Poplar	Valley	2,020	25	53.0	+ 9.7	92	26	20	18	50	1.24	+ 0.19	0.95	0.0	2	24	1	5	n.	H. M. Cosier.
Raymond	Teton	4,260		47.8		84	26	19	30	50	0.10		0.10	T.	1	14	12	4	w.	W. H. Campbell.
Red Lodge	Carbon	5,548	10	46.8	+ 7.4	80	25	13	4	45	1.99	− 0.73	0.95	3.0	5	12	11	7	nw.	I. A. Draper.
Reese Creek	Gallatin	5,000									2.74		1.26	16.4	4	18	3	9		Henry Cramer.
Renova	Jefferson	4,383	11	50.1	+ 6.1	86	26	18	1	56	0.92	− 0.43	0.40	0.0	6	18	7	5	sw.	F. B. Elmer.
Rimini	Lewis & Clark	7,900	2								0.62		0.33	4.2	3	21	6	3	sw.	Milo Brooks.
Ryegate	Yellowstone	3,640	1	51.3		87	25†	25	3†	53	1.02		0.40	T.	3	22	1	7		H. W. Scherfenberg.
Sedan	Gallatin	3,155	2																	Jas. Woosley.
Springbrook	Dawson		9	53.2		92	19	18	4†	48	1.59		0.70	6.0	4	10	12	8	sw.	Mrs. H. L. Miller.
Stearns	Lewis & Clark	4,500									0.61		0.46		2	15	1	14	s.	J. W. Hardgrove.
Three Forks	Gallatin	4,066		50.0		83	25†	21	15	51	1.36		0.60	0.0	7	15	9	6	sw.	A. A. Adams
Toknaj	Dawson	2,050	5	52.4		91	20†	20	18	58	1.13		0.59		4	23	6	1		U. S. Reclamation Service.
Townsend	Broadwater	3,790	1								0.48		0.33		3					River Observer.
Trail Creek	Park	6,000	1								2.35		0.83	6.8	8	18	8	4	w.	Andrew Wiedenbauer.
Utica	Fergus	5,000	16																	P. W. Korell.
Valentine	do		4	52.4		89	25	20	4	52	0.99		0.60	0.0	3	16	8	6	w.	B. M. Bean.
Virginia City	Madison	5,880	22	47.4	+ 7.3	81	26	18	14†	35	1.52	+ 0.23	0.56	T.	6	12	9	9	w.	M. Mailand.
Wall Rock Mountain	Broadwater	5,600									1.82		0.71	7.8	5	16	11	3		D. L. Doig.
Warm Springs Creek	Madison	7,500									1.52		0.55	7.3	12	9	9	12	sw.	M. D. Lytle.
West Rosebud Creek	Carbon										1.85		0.84	1.5	7	15	8	7	w.	C. P. Whitten.
Willow Creek	Park	9,000									0.66		0.35	4.0	2	20	9	1	w.	John Topp.
Wolf Creek	Lewis & Clark	4,000	5																	A. W. Verharen.
Wolf Point	Valley	1,995									0.62		0.29		3					River Observer.
Woodville	Jefferson	6,376									0.64		0.33	3.0	6	14	13	3	sw.	Anna Kinman.
North Dakota.																				
Aplin	Oliver		3			85[p]	1	20[p]	14	55[p]	0.51		0.45	0.0	2	13	13	4	n.	J. B. Hagelbarger.
Beach	Billings	2,759	3	46.5[a]		84[a]	9	15[a]	17	44[a]	1.41		0.49	0.0	6	18	9	3	nw.	D. J. Steiner.
Berthold Agency	McLean	2,082	13	50.5[a]	+ 7.0	91	20	15[a]	23	58[a]	0.89	− 0.47	0.47	0.0	4	21	2	7	n.	C. L. Hall.
Bismarck	Burleigh	1,674	35	50.1	+ 7.5	90	27	20	23	55	0.59	− 1.29	0.52	0.5	4	17	7	6	n.	U. S. Weather Bureau.
Broncho	Mercer		2			90	20				0.54		0.35	T.	2	3	26	1	nw.	E. M. Walker.
Buford	Williams	1,944	4	52.4[a]		91[a]	20	22[a]	16	45[a]	0.84		0.47		2				nw.	G. O. Sanford.
Coal Harbor	McLean	1,901	13	51.4[b]	+ 9.6	91[b]	27	15[c]	23	59[c]	1.15	+ 0.19	0.90	0.5	3				nw.	F. H. Childs.
Dickinson	Stark	2,453	17	50.4	+ 7.8	89	20	18	18	54	1.71	+ 0.54	0.70	3.0	4	14	9	7	nw.	L. R. Waldron.
Edgeley	Lamoure	1,468	8	48.3	+ 7.8	88	27	16	17	47	1.48	− 0.51	1.48	T.	1	19	4	7	nw.	O. A. Thompson.
Ellendale	Dickey	1,449	17																	U. S. Weather Bureau.
Epping	Williams		2								3.05		1.75	0.0	5	21	7	2	nw.	J. C. Wilson.
Fullerton	Dickey	1,439	11	48.4	+ 6.6	87	27	17	16	49	1.50	− 0.41	0.49	10.1	5	20	3	7	s.	F. O. Alin.
Haley	Bowman		2	57.2		89	20	32	18	51	1.83		0.86	0.0	4	20	2	8	nw.	A. M. Oberchain.
Hettinger	Adams	2,253	3	55.7		89	20	27	15	34	0.07		0.04	0.0	2	2	27	1		F. E. Ellickson.
Howard	Williams	2,275	3	48.6		89	26	18	18	49	0.65		0.35	T.	4	17	8	5	nw.	C. P. Amsbaugh.

TABLE 1.—*Climatological data for April, 1910. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
North Dakota—Cont'd.																				
Jamestown	Stutsman	1,390	22	47.6	+ 5.3	90	27	4	17	55	1.45	− 0.35	0.85	6.0	3	15	9	6	....	L. B. Baldwin.
Lamoine	Kidder	....	2	46.6[a]	....	89[a]	27	10	17†	67	0.67	....	0.67	0.0	1	22	3	5	nw.	E. V. Virgin.
Lamoure	Lamoure	1,307	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	A. H. Ormsby
McHenry	Eddy	1,509	1	45.4	....	85	27	15	15	47	0.91	....	0.55	2.0	4	17	6	7	nw.	John Knox.
Manfred	Wells	1,605	8	47.6	....	90	27	12	23	50	1.05	....	0.65	1.5	4	18	5	7	nw.	P. B. Anderson.
Marmarth	Bowman	....	2	....	....	....	....	....	....	....	1.63	....	1.27	1.5	5	18	4	8	s.	S. P. Grane.
Marstonmoor	Stutsman	....	2	....	....	75[m]	25	12	23	56[m]	0.77	....	0.50	2.0	4	20	6	4	nw.	H. H. McCumber.
Medora	Billings	2,225	13	51.8	+ 8.0	90	27	20	1†	59	3.45	+ 2.79	2.06	T.	3	19	8	3	ne.	J. W. Hesser.
Melville	Foster	1,590	12	49.7[f]	....	92[f]	27	12[f]	16	50[f]	1.43	+ 0.62	0.60	10.0	4	....	....	....	....	J. P. Kidder.
Mott	Hettinger	....	3	48.1	....	88	27	15	17†	46	0.94	....	0.33	0.0	6	16	6	8	nw.	O. H. Opland.
Napoleon	Logan	1,955	18	47.5	+ 6.4	87	27	11	23	52	1.18	− 0.68	1.03	1.5	3	21	3	6	nw.	C. J. Hoof.
New England	Hettinger	2,400	14	51.9	+ 9.4	89	20	17	18	57	0.25	− 0.73	0.15	0.0	3	....	....	....	nw.	W. C. McKenzie.
New Salem	Morton	2,163	3	49.4	....	89	27	14	23	55	0.43	....	0.31	.....	3	18	4	8	nw.	J. Christianson.
Orange	Adams	....	3	48.7[a]	....	90	20†	14[a]	22	56[a]	0.54	....	0.45	.....	4	22	3	5	nw.	J. E. Goforth.
Palermo	Ward	2,250	6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T. A. McCann.
Schafer	McKenzie	....	1	53.0	....	91	27	19	18	51	1.89	....	0.90	0.0	4	22	5	2	w.	F. L. Clark.
Steele	Kidder	1,857	14	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	B. C. Smith.
Swartwood	Bowman	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	W. F. Adams.
Washburn	McLean	1,731	6	49.9	....	92	27	15	23	57	0.62	....	0.45	T.	2	16	8	6	s.	W. R. Peterson.
Williston	Williams	1,875	33	50.3	+ 9.8	91	26	18	18	48	1.33	+ 0.10	0.64	0.0	8	12	11	7	n.	U. S. Weather Bureau.
Wishek	McIntosh	2,010	5	49.2	....	86	27	16	16	47	0.30	....	0.25	0.5	2	19	7	4	nw.	H. E. Timm.
South Dakota.																				
Aberdeen	Brown	1,300	20	49.0	+ 4.8	90	27	19	17	52	2.28	− 1.02	0.78	16.0	4	19	2	9	nw.	D. G. Gallett.
Academy	Charles Mix	....	11	53.6	+ 6.5	92	20†	23	23	51	1.39	− 0.85	0.70	6.5	5	19	5	6	nw.	I. T. Lothrop.
Alexandria	Hanson	1,352	21	52.2	+ 4.9	96	28	20	17	48	2.00	− 0.89	1.36	4.0	5	15	9	6	nw.	W. S. Hill.
Ardmore	Fall River	3,557	1	....	....	....	....	....	....	....	1.00	....	1.00	0.0	1	18	8	4	....	C. V. Glenn.
Armour	Douglas	1,521	15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	J. S. Bean.
Belle Fourche	Butte	3,000	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	U. S. Reclamation Service.
Bowdle	Edmunds	1,995	15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	Chas. Paul.
Brookings	Brookings	1,636	21	50.4	+ 5.8	93	28†	18	17†	50	2.34	+ 0.31	0.80	4.0	6	12	14	4	n.	Experiment Station.
Burke	Gregory	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	James Connell.
Canton	Lincoln	1,248	15	50.9	+ 3.3	97	28	20	17	53	1.99	− 0.28	0.87	3.0	4	23	1	6	se.	John H. Holsey.
Cascade Springs	Fall River	3,422	2	52.2[a]	....	93[a]	28	28[a]	5	60[a]	0.83	....	0.83	0.0	1	22	5	3	w.	Fred Noerenberg.
Castlewood	Hamlin	1,685	4	48.4	....	94	28	18	19	49	1.62	....	0.46	5.5	6	18	2	10	nw.	M. N. Bradley.
Centerville	Turner	1,229	13	....	....	99[c]	28	20	17	63[c]	1.34	− 0.42	0.62	1.9	6	11	12	7	nw.	Frank Williams.
Chamberlain	Brule	1,363	13	54.7[c]	....	92[c]	20	24[c]	23	56[c]	0.81	− 0.92	0.59	T.	3	17	6	7	nw.	G. A. Fry.
Clark	Clark	1,779	16	49.2	+ 4.5	93	28	16	17	44	1.77	− 0.12	0.86	8.0	6	17	6	7	nw.	O. H. LaCraft.
Clear Lake	Deuel	1,800	7	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	L. F. Hanley.
Cottonwood	Stanley	....	....	52.8	....	92	28	21	23	56	1.06	....	0.50	0.0	3	15	12	3	nw.	Experiment Station.
Davistor	Perkins	....	....	49.9[a]	....	88[a]	20†	12[a]	23	60[a]	0.45	....	0.45	0.0	1	20	9	1	nw.	G. G. Davis.
Deadwood	Lawrence	4,535	....	48.2	....	84	27†	19	16	50	3.50	....	....	15.0	4	18	9	3	....	R. E. Grimshaw.
Deerfield	Pennington	6,000	....	....	....	....	....	....	....	....	1.06	....	0.34	6.4	7	20	3	7	w.	Frank E. Miller.
De Smet	Kingsbury	1,726	17	49.3	+ 4.9	93	28	17	17	51	1.92	− 0.28	1 02	5.0	4	21	1	8	nw.	J. G. Purintun.
Dowling	Stanley	2,250	....	54.2	....	93	27	24	23	53	1.20	....	0.75	0.0	5	18	7	5	nw.	M. P. Dowling.
Dumont	Lawrence	6,195	....	....	....	....	....	....	....	....	4.67	....	2.63	27.0	7	16	.	7	nw.	A. B. Wood.
Elk Mountain	Custer	4,700	....	....	....	....	....	....	....	....	0.80	....	0.80	1.0	1	17	6	7	nw.	James E. Blaine.
Elk Point	Union	1,127	11	54.4[a]	+ 5.5	96[c]	27	20[a]	23	49[a]	....	....	....	....	....	9	12	9	....	M. Hoffman, jr.
Ellingson	Perkins	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	A. O. Knutson.
Englewood	Lawrence	5,723	....	....	....	....	....	....	....	....	2.77	....	1.41	21.0	8	10	12	8	nw.	John B. Jolly.
Eureka	McPherson	1,884	1	51.8	....	90	27	17	23	46	0.82	....	0.62	1.0	3	18	8	4	nw.	Experiment Station.
Faulkton	Faulk	1,595	15	50.7	+ 6.2	88	27	19	23	48	1.81	− 0.84	1.58	3.0	3	21	1	8	n.	Miss Belle Talcott.
Flandreau	Moody	1,565	20	50.8	+ 5.3	94	28	13	23	45	2.15	− 0.31	0.90	4.0	5	22	3	5	n.	W. A. Harris.
Forestburg	Sanborn	1,231	18	51.4	+ 5.3	95	28	21	17	52	1.36	− 1.09	0.53	7.5	5	18	5	7	se.	S. S. Judy.
Fort Meade	Meade	3,624	28	55.2	+10.3	92	27	22	24	48	2.00	− 0.34	1.60	0.5	3	16	6	8	w.	Post Hospital.
Frederick	Brown	1,371	3	45.9[b]	....	89[d]	10	14[c]	17	56[b]	1.79	....	0.87	9.0	3	....	....	....	....	J. E. Jeffers.
Gannvalley	Buffalo	....	12	52.8	+ 6.8	96	28	21	24	50	1.35	− 0.41	1.25	.....	3	14	10	6	nw.	V. P. Drips.
Greenmount	Lawrence	6,430	....	....	....	....	....	....	....	....	7.68	....	3.99	74.3	4	18	5	7	w.	Hugh V. Harlan.
Greenwood	Charles Mix	....	16	54.6	+ 5.1	99	28	25	19†	54	0.64	− 2.08	0.30	3.0	3	16	8	6	nw.	T. C. Williamson.
Hardy Ranger Station	Lawrence	6,600	....	....	....	....	....	....	....	....	2.78	....	1.80	37.0	6	27	1	2	sw.	Mrs. Mary E. Seals.
Harvey's Ranch	...do	6,282	....	....	....	....	....	....	....	....	2.00	....	1.10	24.0	2	12	12	6	w.	Jerome Harvey.
Hermosa	Custer	3,278	4	52.0	....	92	26†	23	4	56	0.45	....	0.45	0.0	1	17	10	3	....	S. M. Booth.
Highmore	Hyde	1,890	14	52.0	+ 5.9	90	28	18	23	49	1.40	− 0.32	0.98	4.0	6	16	6	8	nw.	Experiment Station.
Hill City	Pennington	5,067	....	....	....	....	....	....	....	....	0.69	....	0.49	T.	3	17	9	4	sw.	Geo. A. Karr.
Hopewell	Stanley	....	....	54.4	....	93	20	20	16	51	0.25	....	0.25	T.	1	16	8	6	s.	E. R. Myers.
Howard	Miner	1,564	18	48.4[c]	....	93[b]	28	15[b]	17	45[c]	1.30	− 0.68	0.70	4.3	6	19	4	7	nw.	J. J. Cox.
Howell	Hand	....	8	50.0	....	90	27†	20	19	54	0.99	....	0.66	3.3	5	18	7	5	nw.	M. A. Shuster, jr.
Huron	Beadle	1,336	28	49.8	+ 5.2	94	28	20	17	48	0.89	− 1.76	0.42	3.1	5	15	6	9	n.	U. S. Weather Bureau.
Ipswich	Edmunds	1,530	13	48.0[a]	+ 4.4	88[a]	27	19[a]	24	50[a]	1.50	− 0.50	1.28	2.2	3	21	4	5	nw.	J. B. Taylor.
Kadoka	Stanley	2,467	....	52.6	....	93	28	23	23	54	0.46	....	0.28	0.0	3	14	9	7	nw.	Rev. D. S. Brown.
Kennebec	Lyman	1,689	17	53.0	+ 6.0	94	30	20	19	60	1.05	− 1.04	0.80	2.5	4	20	5	5	nw.	R. C. Van Horn.
Kidder	Marshall	1,295	6	48.6	....	83	10	16	19	50	1.83	....	0.55	10.0	4	20	2	8	nw.	H. C. Schussler.
Kimball	Brule	1,788	21	52.5	+ 5.7	89	28	20	23	52	0.81	− 1.54	0.53	1.8	4	23	1	6	se.	G. D. Rose.
La Delle	Spink	1,400	13	51.3	+ 6.7	94	28	15	17	52	1.87	− 0.36	0.72	5.0	7	19	1	10	nw.	E. L. Ebbert.
Lead‖	Lawrence	5,200	....	49.0	....	82	27	22	4	40	3.59	....	2.46	13.5	7	14	10	6	nw.	E. F. Irwin.
Lemmon	Perkins	2,345	1	50.0[b]	....	90[b]	20†	20[b]	18†	57[b]	0.54	....	0.34	0.0	2	23	2	5	nw.	W. E. Lyman.
Leslie	Stanley	....	14	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	P. G. Robinson.
Marion	Turner	1,447	9	52.4	....	98	28	20	17	51	0.48	....	0.43	2.0	2	16	8	6	nw.	M. H. Dains.
Marston	Sully	....	2	50.6[c]	....	95[c]	28	15[c]	23	64[c]	0.32	....	0.32	0.0	1	20	4	6	se.	John S. Walker.
Mellette	Spink	1,300	15	51.3	+ 6.9	91	28	21	23	49	0.89	− 1.17	0.42	3.5	5	20	3	7	n.	Frank A. Howe.
Menno	Hutchinson	1,325	13	52.2	+ 5.0	100	28	21	17	52	1.06	− 0.56	0.55	5.5	3	19	4	7	nw.	J. H. Swanton.
Milbank	Grant	1,148	19	47.4	+ 3.5	89	27	16	19	48	2.12	0.00	0.96	3.2	6	19	1	10	nw.	I. T. Patridge.
Mitchell	Davison	1,312	16	51.0	+ 4.8	95	28	21	17†	51	1.27	− 1.53	0.61	6.0	5	21	4	5	s.	C. W. Downey.
Murdo	Lyman	2,300	2	52.5[b]	.....	90	20†	20[b]	23	50[b]	0.50	.....	0.50	0.0	1	18	6	6	nw.	L. C. Bode.
Oelrichs	Fall River	3,339	18	....	....	90	26	22	16	....	0.75	− 1.26	0.75	0.0	2	5	22	3	nw.	J. E. Strouse.
Orman	Butte	2,920	4	53.0[a]	....	91[b]	20†	24[c]	17	56[a]	1.55	....	1.14	0.2	3	25	0	5	w.	U. S. Reclamation Service.
Ottumwa	Stanley	....	2	49.4[a]	....	92[a]	28	19[a]	19†	59[b]	0.46	....	0.20	2.0	3	21	5	4	nw.	J. W. Bretz.
Pierre	Hughes	1,573	18	53.6	+ 7.1	94	20	27	16	51	0.59	− 1.39	0.57	T.	3	15	10	5	nw.	U. S. Weather Bureau.
Plankinton‖	Aurora	1,528	16	....	....	....	....	....	....	....	0.84	− 1.46	0.52	T.	4	10	16	4	se.	W. G. Andrews.
Rapid City	Pennington	3,251	22	51.7	+ 8.2	90	28	30	16	52	0.74	− 1.56	0.45	T.	4	12	13	5	nw.	U. S. Weather Bureau.
Redfield	Spink	1,295	12	50.6	+ 6.8	92	28	26	17†	50	0.85	− 0.82	0.45	....	2	21	2	7	nw.	A. S. Hall.
Rochford	Pennington	5,228	....	....	....	....	....	....	....	....	1.41	....	0.60	13.0	5	16	9	5	nw.	Mrs. M. E. Deffenbaugh.
Rosebud	Meyer	2,600	16	52.8[b]	.....	90[a]	28	21[a]	19	56[b]	0.92	− 1.34	0.60	3.0	3	16	7	7	nw.	W. M. Ege.
Roslyn	Day	....	4	....	....	....	....	....	....	....	2.22	....	0.95	7.5	6	20	2	8	nw.	O. O. Floren.
Savoy	Lawrence	4,500	....	....	....	....	....	....	....	....	3.15	....	2.31	24.0	5	7	19	4	....	M. J. Hall.
Selby	Walworth	....	2	51.8[c]	....	86[c]	20†	20[c]	23	45[c]	0.84	....	....	T.	2	....	....	....	nw.	Miss Gertrude Hall.
Sioux Falls	Minnehaha	1,400	19	52.2	+ 5.8	98	28	18	17	43	1.48	− 0.99	1.10	T.	4	13	10	7	s.	J. H. Bechtold.
Spearfish	Lawrence	3,647	20	53.4	+ 8.1	88	20	21	15	46	1.72	− 0.90	1.50	3.0	3	13	11	6	w.	O. A. Martin.

TABLE 1.—*Climatological data for April, 1910. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
South Dakota—Cont'd.																				
Stephan	Hyde	1,840	6	50.2	.....	92	28	20	23	59	1.17	.....	0.87	2.0	6	17	6	7	nw.	Rev. A. Mattingly.
Tama	Meade	.....	1	.....	.....	91	27	20	23	.....	0.66	.....	0.50	T.	3	.....	.....	.....	.....	J. J. Daly.
Vale	Butte	2,765	2	53.0	.....	92	27	23	5	55	1.94	.....	1.34	T.	4	21	5	4	nw.	U. S. Reclamation Service.
Vermilion	Clay	1,222	9	54.7	+ 7.3	99	28	20	17	48	0.90	− 1.37	0.60	3.0	3	22	3	5	nw.	Prof. E. C. Perisho.
Water's Ranch	Lawrence	4,000	.....	.....	.....	.....	.....	.....	.....	.....	2.21	.....	1.15	8.7	5	14	9	7	nw.	George Waters.
Watertown	Codington	1,735	16	48.9	+ 5.5	94	28	18	16†	46	2.75	+ 0.40	.....	.....	5	21	2	7	s.	Robert Q. Wood.
Wentworth	Lake	.....	17	49.6[a]	.....	93[a]	28	18[a]	17	44[a]	1.64	− 0.65	0.52	6.9	6	23	1	6	nw.	R. C. Zimmerman.
Wessington Springs	Jerauld	1,410	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. N. Dunham.
White Lake	Aurora	1,646	.....	.....	.....	.....	.....	.....	.....	.....	0.50	.....	0.50	T.	1	17	7	6	nw.	Mrs. G. A. Rogers.
Yankton	Yankton	1,234	36	52.3	+ 4.9	100	28	21	17	47	0.62	− 2.18	0.31	5.0	6	10	14	6	nw.	U. S. Weather Bureau.
Minnesota.																				
Pipestone	Pipestone	1,710	11	50.5	+ 6.5	93	29	18	16	45	1.20	− 0.37	0.85	1.0	3	17	9	4	sw.	W. S. Campbell.
Colorado.																				
Akron	Washington	4,650	8	.....	.....	.....	.....	.....	.....	.....	2.01	.....	1.46	0.0	4	.....	.....	.....	.....	Ira M. Barnhouse.
Alma	Park	10,238	13	.....	.....	.....	.....	.....	.....	.....	0.60	− 0.61	0.43	7.0	2	24	0	6	w.	F. H. Clark.
Arriba (near)	Lincoln	5,238	4	52.1	.....	86	28	15	6	54	1.44	.....	1.19	2.0	5	20	7	3	nw.	C. S. Graves.
Auldhurst	Teller	8,500	.....	.....	.....	.....	.....	.....	.....	.....	2.10	.....	0.73	11.0	7	8	12	10	s.	Mrs. Alice A. Auld.
Barker	Boulder	8,000	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Eastern Colo. Power Co
Boreas	Park	11,489	.....	.....	.....	.....	.....	.....	.....	.....	0.76	.....	0.22	11.0	6	0	20	10	.....	Frank Soper.
Boulder	Boulder	5,347	14	54.8	+ 6.2	85	27	23	4	36	1.34	− 1.82	0.51	0.2	8	19	9	2	w.	S. A. Giffin.
Burlington	Kit Carson	4,160	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. Creglow.
Cassells	Park	8,445	.....	.....	.....	.....	.....	.....	.....	.....	0.85	.....	0.25	5.5	8	11	9	10	w.	Harriet M. Cassell.
Castle Rock	Douglas	6,220	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Chas. Hy. Ellis.
Cheesman	Jefferson	6,890	7	45.8	.....	76	27†	18	16	44	1.75	.....	0.75	2.8	4	10	18	2	sw.	C. L. Adams.
Cheyenne Wells	Cheyenne	4,279	18	50.8[a]	.....	91	28	23[a]	5	51[a]	1.15	− 0.79	0.68	T.	4	16	8	6	.....	J. B. Robertson.
Como	Park	9,785	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Edwin Pike.
Cope	Washington	.....	12	45.8	− 2.6	73	28	20	15	42	.....	.....	.....	.....	.....	15	10	5	n.	A. A. Williams.
Corona	Grand	11,660	3	26.1	.....	51	28	− 1	4	29	2.74	.....	0.61	32.4	12	13	8	9	w.	U. S. Weather Bureau.
Denver	Denver	5,272	38	52.2	+ 4.5	86	28	25	4	39	1.38	− 0.79	0.63	T.	5	14	11	5	s.	Do.
Edgewater	Jefferson	5,450	2	50.1	.....	87	28	19	4	52	1.42	.....	0.55	0.0	4	16	7	7	.....	Dr. J. B. Fish.
Estes Park Fish Hatchery	Larimer	8,000	.....	.....	.....	.....	.....	.....	.....	.....	0.98	.....	0.62	T.	8	8	13	9	w.	Gaylord H. Thomson.
Fort Collins	Larimer	4,985	31	50.2	+ 4.6	86	28	18	5	53	0.42	− 1.76	0.36	0.0	2	15	10	5	nw.	Colorado Agri. College.
Fort Morgan	Morgan	4,319	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Della M. Scott.
Frances	Boulder	9,300	5	41.7	.....	70	27†	14	4	36	0.66	.....	0.22	6.5	7	14	13	3	w.	D. A. Barry.
Fry's Ranch	Larimer	7,500	.....	44.5	.....	78	28	19	4	43	0.67	.....	0.34	0.5	5	17	10	3	w.	Norman W. Fry.
Georgetown	Clear Creek	8,550	9	.....	.....	.....	.....	.....	.....	.....	0.39	.....	0.13	T.	4	13	14	3	.....	H. L. Corbett.
Greeley	Weld	4,649	18	53.2	+ 5.4	89	27†	24	16	53	0.84	− 0.95	0.39	0.0	4	18	11	1	s.	Nelson Reynolds.
Hartsel	Park	7,679	.....	.....	.....	.....	.....	.....	.....	.....	0.48	.....	0.15	1.0	7	18	6	6	.....	Emily Kleinknecht.
Hawthorne	Boulder	6,000	2	.....	.....	.....	.....	.....	.....	.....	1.04	.....	0.47	0.0	3	25	3	2	.....	B. E. Chesebro.
Holyoke (near)	Phillips	3,745	14	.....	.....	.....	.....	.....	.....	.....	0.22	− 1.85	0.20	0.0	2	20	0	10	nw.	A. C. Cauble.
Idaho Springs	Clear Creek	7,534	10	44.2	+ 3.9	73	27	20	15	38	0.90	.....	0.30	1.0	5	1	28	1	e.	J. J. Willis.
Kossler	Boulder	7,720	3	.....	.....	.....	.....	.....	.....	.....	0.99	.....	0.48	3.1	4	5	21	4	w.	Central Colo. Power Co.
La Porte	Larimer	5,053	19	.....	.....	.....	.....	.....	.....	.....	0.48	− 1.72	0.33	0.0	2	.....	.....	.....	.....	P. A. Taft.
Le Roy (near)	Logan	4,380	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Chas. Green.
Longmont	Boulder	4,980	8	50.8	.....	86	27†	17	5†	53	0.68	.....	0.43	0.0	2	17	7	6	w.	Geo. W. Johnson.
Long's Peak (near)	Larimer	8,600	15	35.6	+ 2.0	69	28	10	4	45	1.66	− 0.99	0.85	5.0	3	19	8	3	nw.	Enos A. Mills.
Moraine	do	7,775	20	42.4	+ 4.7	72	27	16	17	41	0.05	− 2.14	0.05	0.5	1	13	13	4	w.	J. D. Stead.
Platte Canyon	Jefferson	5,492	11	.....	.....	.....	.....	.....	.....	.....	1.35	.....	0.73	0.5	4	15	11	4	n.	Denver Union Water Co.
St. Cloud	Larimer	7,750	7	.....	.....	.....	.....	.....	.....	.....	0.80	.....	0.55	0.0	2	16	7	7	nw.	Mrs. E. K. Bristol.
Sedgwick	Sedgwick	3,573	2	53.2	.....	98	27	18	5†	65	0.48	.....	0.23	T.	3	22	5	3	sw.	Dr. Edwin Lewis.
Sill Mine	Clear Creek	11,500	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Chas. F. Deininger.
Spicer (near)	Larimer	8,700	.....	.....	.....	.....	.....	.....	.....	.....	0.59	.....	0.45	3.6	6	21	2	7	sw.	Frank W. Murphy.
Sterling	Logan	3,892	.....	51.2	.....	90	28	20	5	55	0.78	.....	0.56	0.0	3	13	13	4	nw.	Great Western Sugar Co.
Waterdale	Larimer	5,206	7	52.3	+ 5.9	91	28	20	5	50	0.79	− 1.58	0.59	0.0	3	.....	.....	.....	.....	P. H. Boothroyd.
Westlake	Boulder	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. E. Richardson.
Wray	Yuma	3,512	14	53.5	+ 3.7	94	28	24	19	55	1.21	− 1.08	0.50	T.	5	14	13	3	nw.	J. C. Tuomey.
Yuma	Yuma	4,138	19	.....	.....	.....	.....	.....	.....	.....	1.16	− 1.04	0.73	0.0	3	13	8	9	se.	Geo. W. Custer.
Nebraska.																				
Ainsworth	Brown	2,521	5	53.7	.....	99	28	25	16†	46	0.61	.....	.....	T.	3	9	13	8	sw.	John M. Cotton.
Albion	Boone	1,747	12	54.0[b]	.....	100[b]	28	25[b]	19	52[b]	0.72	− 2.25	0.51	.....	4	20	4	6	s.	F. M. Weitzel.
Alliance	Boxbutte	3,968	15	49.9	+ 3.7	91	28	19	19	60	0.75	− 1.13	0.50	.....	2	23	7	0	n.	J. A. Keegan.
Alma	Harlan	1,939	13	55.8	+ 4.2	98	28	24	6	55	0.65	− 1.98	0.43	0.0	3	21	6	3	n.	W. A. Sharpnack
Anoka	Boyd	.....	4	51.4	.....	99	28	21	5†	63	1.20	.....	0.52	3.0	3	16	8	6	nw.	W. Whitla.
Arcadia	Valley	2,186	11	.....	.....	.....	.....	.....	.....	.....	0.69	− 1.02	0.69	T.	1	16	8	6	nw.	Jas. L. Owen.
Ashland	Saunders	1,100	27	55.4	+ 3.2	98	28	27	17	58	0.11	− 2.45	0.08	0.5	2	13	15	2	nw.	Dr. A. S. von Mansfelder
Ashton	Sherman	2,061	17	.....	.....	.....	.....	.....	.....	.....	0.90	− 1.80	0.88	T.	2	20	4	6	n.	F. Rein.
Atkinson	Holt	2,108	4	50.8	.....	98	28	23	23	59	1.06	.....	0.50	T.	3	19	4	7	nw.	Chas. J. Wilson.
Auburn	Nemaha	1,051	18	54.4	+ 2.2	97	28	28	17†	55	0.16	− 2.77	0.09	0.0	2	16	11	3	nw.	J. R. Huffman.
Aurora	Hamilton	1,792	15	56.0	+ 4.9	100	29	25	19	54	0.19	− 2.47	0.10	0.0	3	21	6	3	s.	Chi., Burl. & Quincy R. R.
Beatrice	Gage	1,235	19	57.2	+ 5.0	94	28	27	6†	54	0.05	− 2.27	0.05	.....	1	23	3	4	nw.	Wm. S. Waxham.
Beaver City	Furnas	2,147	19	56.8	+ 4.9	100	28	26	6	55	0.25	− 2.07	0.08	0.0	4	15	10	5	nw.	T. M. Davis.
Bellevue	Sarpy	1,210	28	55.9	.....	95	28	24	17	46	0.34	− 1.85	0.17	2.0	3	19	2	9	ne.	Prof. A. A. Tyler.
Benkelman	Dundy	2,968	13	.....	.....	.....	.....	.....	.....	.....	0.76	− 1.32	0.45	0.0	3	17	8	5	se.	R. D. Druliner.
Bertrand	Phelps	2,515	2	.....	.....	.....	.....	.....	.....	.....	0.17	.....	0.11	.....	2	.....	.....	.....	.....	W. F. Dobbin.
Blair	Washington	1,122	15	54.6	+ 4.9	97	28	22	17	51	0.55	− 2.27	0.36	2.0	3	18	7	5	nw.	H. H. Hahn.
Bloomfield	Knox	.....	4	52.8	.....	100	28	21	19	55	0.41	.....	0.20	4.0	3	14	7	9	nw.	J. M. Barnard.
Bradshaw	York	1,715	11	.....	.....	.....	.....	.....	.....	.....	1.21	− 1.54	0.80	.....	3	20	6	4	.....	E. C. Roggy.
Bridgeport	Morrill	3,658	14	50.6	+ 3.2	93	27	20	5	56	2.10	+ 0.20	0.80	T.	4	17	8	5	nw.	Robt. H. Willis.
Brokenbow	Custer	2,477	15	50.8	+ 2.8	99	28	22	6†	55	0.43	− 2.54	0.31	0.0	4	19	4	7	.....	Chi., Burl. & Quincy R. R.
Burge	Cherry	2,674	4	52.6[a]	.....	97[a]	28	19[a]	19	59[a]	0.20	.....	0.20	0.0	1	.....	.....	.....	nw.	H. A. Davis.
Cairo	Hall	1,951	1	.....	.....	.....	.....	.....	.....	.....	0.26	.....	0.18	.....	2	.....	.....	.....	.....	Elliott Harrison.
Callaway	Custer	2,555	17	54.6	+ 6.0	101	28	22	6	54	0.62	− 1.94	0.47	T.	2	16	3	11	nw.	J. H. Evans.
Cambridge	Furnas	2,258	3	55.8	.....	101	28	22	4	53	0.31	.....	0.12	0.0	4	17	7	6	nw.	Chas. Jensen.
Canton (near)	Sioux	.....	1	47.8[f]	.....	87[f]	29	16[f]	4	57[f]	0.86	.....	0.64	.....	2	.....	.....	.....	nw.	A. E. Hann.
Columbus	Platte	1,442	17	52.1	+ 2.3	100	28	25	23	58	0.24	− 2.30	0.13	T.	4	16	4	10	nw.	C. C. Gray.
Cozad	Dawson	2,496	2	.....	.....	.....	.....	.....	.....	.....	0.25	.....	0.25	T.	1	22	6	2	s.	A. A. Luttin.
Creighton	Knox	1,600	13	53.2	+ 5.4	101	28	22	23	52	1.18	− 2.30	0.61	4.0	5	16	9	5	nw.	E. S. Cowan.
Crete	Saline	1,368	27	55.3	+ 3.5	96	28	27	23	52	0.15	− 2.46	0.08	0.0	2	19	4	7	n.	Doane College.
Culbertson	Hitchcock	2,565	23	57.0[b]	.....	100[a]	28	28[b]	5†	52[b]	0.27	− 1.84	0.18	0.0	3	.....	.....	.....	nw.	J. H. Corrick.
Curtis	Frontier	2,553	13	53.7	+ 2.2	95	28†	21	8	61	0.94	− 1.41	0.57	.....	3	13	12	5	nw.	Dr. S. R. Rasee.
David City	Butler	1,619	21	54.2	+ 4.6	96	28	26	17	45	0.50	− 2.75	0.27	1.5	2	13	6	11	se.	S. Clingman.
Dawson	Richardson	945	17	57.0	+ 4.1	96	28†	27	20	59	0.08	− 2.68	0.07	T.	2	14	10	6	nw.	Mrs. E. I. Atkinson.
Dubois	Pawnee	1,074	5	.....	.....	.....	.....	.....	.....	.....	0.26	.....	0.08	.....	7	20	5	5	n.	O. M. Backus.
Edgar	Clay	1,722	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Geo. W. Ferree.
Ellis	Gage	1,430	5	.....	.....	.....	.....	.....	.....	.....	T.	.....	T.	.....	0	.....	.....	.....	.....	D. J. Wood.
Elmcreek	Buffalo	2,268	2	.....	.....	.....	.....	.....	.....	.....	0.31	.....	0.27	.....	2	.....	.....	.....	.....	E. L. Sutton.
Elsie	Perkins	3,382	2	.....	.....	.....	.....	.....	.....	.....	0.57	.....	0.34	T.	3	.....	.....	.....	.....	J. F. Brittain.

TABLE 1.—*Climatological data for April, 1910. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Nebraska—Cont'd.																				
Enderslake	Brown		1																	G. W. Chappell.
Ewing	Holt	1,888	18	51.6		106	28	22	19	65	0.62	− 2.10	0.37	T.	2					G. H. Benson.
Fairbury	Jefferson	1,316	35	56.4	+ 4.5	96	28	28	25	57	0.42	− 2.26	0.18	T.	5	13	12	5	nw.	W. F. Cramb.
Fairmont	Fillmore	1,641	17	52.0	+ 2.1	95	28	26	1†	57	1.07	− 1.96	0.96	0.2	3	17	1	12	n.	Chi., Burl. & Quincy R. R.
Fort Robinson	Dawes	3,764	26	51.9	+ 5.3	92	28	25	6†	53	0.77	− 0.87	0.77		1	21	1	8	s.	Post Hospital.
Franklin	Franklin	1,820	19																	D. T. Shoemaker.
Fremont	Dodge	1,203	30	55.0	+ 4.9	98	28	24	17	57	0.33	− 2.32	0.14	1.0	3	12	11	7	nw.	Ernest Hahn.
Fullerton	Nance	1,629	8	54.2[a]		102[a]	28	26[a]	19†	58[a]	0.42		0.25		3	16	7	7	nw.	Dr. F. W. Johnson.
Geneva	Fillmore	1,633	20	55.0	+ 2.8	97	28	27	19	50	0.41	− 2.43	0.30	0.5	3	19	6	5	nw.	F. M. Flory.
Genoa	Nance	1,584	35	53.7	+ 4.0	98	28	24	17†	52	0.27	− 2.60	0.09	0.4	4	17	7	6	n.	F. W. Parsons.
Gordon	Sheridan	3,550	8	50.2[c]		93[c]	28	17[c]	24	64[c]	0.51		0.35		2				nw.	G. F. Williams.
Gosper	Gosper		8								0.28		0.23	0.0	2	16	6	8	nw.	E. H. Stoll.
Gothenburg	Dawson	2,557	16	54.2[a]		101	28	13[a]	23	56[a]	0.97	− 1.31	0.47		3	16	3	11	nw.	Dr. W. J. Bartholomew.
Grand Island	Hall	1,860	19	53.8	+ 3.2	88	10†	24	19	52	0.19	− 2.72	0.14	T.	2	18	1	11	nw.	E. A. Barnes.
Grant	Perkins	3,405	7	51.4[b]		97[a]	28	20[b]	16†	54	0.65		0.24	0.0	3				nw.	Cyrus Carver.
Greeley	Greeley	2,121	15	52.0		100	28	25	19	56	1.46	− 1.20	0.55	6.0	7	12	13	5	nw.	W. E. Morgan.
Guiderock	Webster	1,646	10								0.52	− 1.31	0.52	T.	1	13	8	9	n.	J. S. Marsh.
Haigler	Dundy	3,258	15								1.12	− 0.72	0.50	0.0	3	10	12	8	nw.	Chi., Burl. & Quincy R. R.
Halsey‖	Thomas	2,695	8	53.0		98	28	20	15	61	0.90		0.65		3	13	11	6	nw.	U. S. Forest Service.
Hartington	Cedar	1,309	19	51.3	+ 4.3	102	28	21	18	61	0.30	− 2.55	0.20	3.0	2	13	7	10	nw.	D. E. Ewing.
Harvard	Clay	1,812	21	51.6	+ 1.8	95	28	24	23	53	0.73	− 2.27	0.51	0.4	6	17	9	4	nw.	Dr. J. T. Fleming.
Hastings	Adams	1,932	20	52.5	+ 2.4	93	28	25	1	54	1.17	− 1.82	0.77	T.	5	19	6	5	nw.	Chi., Burl. & Quincy R. R.
Hayes Center	Hayes		17																	C. A. Ready.
Hays Springs	Sheridan	3,821	23	49.9	+ 5.1	88	20†	21	19†	61	1.56	− 0.47	1.05	2.0	3	17	9	4	nw.	A. Kadlecek.
Hebron	Thayer	1,458	25	54.9	+ 2.0	94	28	29	19†	53	0.24	− 2.20	0.24	T.	1					Dr. C. M. Easton.
Hemingford	Boxbutte	4,256	1								0.63		0.52		4					A. S. Enyeart.
Hendley	Furnas	2,231	6								0.06		0.06		1					F. L. Jones.
Hillside	McPherson		1	50.6		95	27	16	25	59	0.34		0.16	T.	4	14	7	9	n.	Mrs. M. R. Lloyd.
Holdrege	Phelps	2,324	18	54.8	+ 3.8	101	28	29	23	54	0.29	− 2.62	0.22	0.0	3	20	1	9	nw.	Chi., Burl. & Quincy R. R.
Hooper‖	Dodge	1,228	13	53.8	+ 4.5	100	28	24	17	48	0.45	− 1.76	0.15	T.	5	13	10	7	nw.	W. Howard Heine.
Imperial	Chase	3,278	20	52.6	+ 3.5	94	28	24	19	54	0.71	− 1.53	0.33	T.	3	12	12	6	nw.	Robt. Malcolm.
Kearney	Buffalo	2,146	20	55.2	+ 3.5	100	28	23	19	58	0.55	− 2.04	0.35	0.0	2	21	5	4	nw.	N. C. Dunlap.
Kimball	Kimball	4,697	21	49.4	+ 3.4	95	27	18	15	56	0.90	− 1.06	0.50	4.0	2	21	6	3	nw.	F. J. Bellow.
Kirkwood	Rock		15	52.6	+ 5.4	98	28	24	19	51	1.03	− 1.07	0.93	0.5	3	19	4	7	n.	Mrs. C. Arter.
Kowanda	Deuell		2								1.16		0.56		3					Geo. W. Hulse.
Lexington	Dawson	2,385	21	53.9	+ 4.2	98	28	21	19	57	0.17	− 2.07	0.09	0.0	2	20	0	10	nw.	Robt. Chadwick.
Lincoln	Lancaster	1,189	31	55.6	+ 4.9	97	28	28	17	50	0.02	− 2.75	0.02	0.3	1	12	6	12	sw.	U. S. Weather Bureau.
Loup	Sherman	2,067	16	52.6	+ 3.5	98	28	25	19†	58	0.98	− 1.82	0.51	0.0	2	20	4	6	nw.	E. S. Hayhurst.
Loyal	Custer		2								0.50		0.30		2	17	4	9	s.	C. H. Cass.
McCook	Redwillow	2,506	15	54.4	+ 3.0	98	28	20	1	62	0.76	− 1.15	0.76	0.0	1	22	4	4	se.	C. G. Coglizer.
McCool Junction	York	1,575	12								1.50	− 1.44	1.39	T.	2					L. L. Slagle.
Madison	Madison	1,585	17	51.9	+ 3.7	98	28	22	6	49	0.10	− 2.91	0.10	1.0	1	20	2	8	se.	Dr. F. A. Long.
Marquette	Hamilton	1,839	31								0.15	− 2.49	0.10	T.	3					John Ellis.
Mason City	Custer	2,257	9								0.62	− 2.23	0.52		2					J. A. Amsberry.
Minatare	Scottsbluff	3,825	1																	Anthony Kennedy.
Minden	Kearney	2,169	33	53.5	+ 3.2	99	28	25	19	50	1.23	− 2.07	0.83	0.0	5	18	5	7	n.	Joel Hull.
Mitchell	Scottsbluff		2																	U. S. Reclamation Service.
Monroe	Platte	1,525	13																	Wm. Webster.
Morrill	Scottsbluff		1																	Edwin K. Wieland.
Nebraska City	Otoe	941	33	55.6[b]		96[b]	28	27[b]	17	49[b]	0.10	− 2.46	0.05	1.0	2	13	12	5	e.	Chi., Burl. & Quincy R. R.
Norfolk	Madison	1,532	27	51.9	+ 4.2	102	28	22	6†	57	0.40	− 2.24	0.30	3.2	3	20	4	6	nw.	Dr. P. H. Salter.
North Loup	Valley	1,961	22	52.8	+ 3.1	103	28	23	6	57	0.56	− 2.30	0.43	T.	2	17	8	5	n.	W. G. Rood.
North Platte	Lincoln	2,841	36	52.7	+ 3.7	95	28	25	19	50	0.48	− 1.67	0.29	0.0	5	19	2	9	nw.	U. S. Weather Bureau.
Oakdale	Antelope	1,722	23	51.2	+ 2.7	101	28	24	19	53	0.72	− 2.03	0.30	3.5	6	16	6	8	nw.	G. S. Clingman.
Odell	Gage	1,278	16								0.06	− 2.32	0.06		1	12	4	14	nw.	Chi., Burl. & Quincy R. R.
Omaha	Douglas	1,103	40	55.0	+ 4.5	94	28	22	17	46	0.26	− 2.75	0.20	2.1	4	12	10	8	n.	U. S. Weather Bureau.
Ord	Valley	2,062	16								0.55	− 2.09	0.31		2	15	8	7	n.	James Milford.
Orleans	Harlan	1,993	2								0.30		0.30	0.0	1					James McGeachin.
Osceola	Polk	1,644	12	53.1[d]		98[d]	27	24[d]	19	54[d]	0.30	− 2.59	0.20	T.	2				nw.	G. T. Ray.
Palisade	Hitchcock		1								0.67		0.67		1					E. E. Young.
Palmyra**‖	Otoe	1,142	15	54.8	+ 4.1	94	28	30	16†		T.	− 2.33	T.	T.	0	21	7	2	sw.	Thomas Coles.
Pawnee City	Pawnee	1,175	15	55.4		96	28	25	20	63	T.	− 2.68	T.	T.	0	16	5	9	n.	Frank A. Barton.
Plymouth	Jefferson	1,419	6	55.0		95	28	26	25	53	0.04		0.02	T.	2	13	7	10	nw.	John Ruppel.
Purdum	Blaine		10	51.6		98	28	20	19	56	0.42	− 1.55	0.31	T.	3	20	7	3	nw.	T. C. Jackson.
Ravenna	Buffalo	2,028	33	53.6	+ 3.5	98	28	23	6	54	1.80	− 0.75	0.84	T.	6	19	3	8	nw.	Erastus Smith.
Redcloud	Webster	1,687	18	55.9	+ 3.5	97	28	24	6	57	0.93	− 1.27	0.84	T.	3	22	3	5	nw.	Chas. S. Ludlow.
St. Libory	Howard	1,887	15								0.61	− 2.22	0.34	T.	4	21	4	5	nw.	W. I. Meader.
St. Paul	...do	1,796	16	54.4	+ 4.1	98	28	26	19	53	0.28	− 2.31	0.13	T.	3	21	3	6	nw.	Paul Anderson.
Santee	Knox		22	55.8	+ 6.6	102	28	24	19†	50	1.08	− 1.47	0.53	4.2	3	17	5	8	nw.	E. G. Kendall.
Sargent	Custer		13								0.20	− 2.15	0.20		1				nw.	Jas. L. Ferguson.
Schuyler	Colfax	1,357	17	54.9		98	28	23	23	57	0.70	− 2.13	0.60	T.	2	15	8	6	s.	John T. Sumner.
Scottsbluff	Scottsbluff	3,888	4	52.6		93	27†	21	5	56	1.18		0.86	6.0	3	21	6	3	nw.	A. B. McCoskey.
Seward	Seward	1,435	20	53.8	+ 2.0	98	27	24	6	56	0.32	− 2.67	0.30	0.2	2	18	6	6	nw.	Chi., Burl. & Quincy R. R.
Sheridan	Wheeler		2								0.75		0.60		2	19	6	5	nw.	J. C. Harris.
Sidney	Cheyenne	4,093	18								0.71	− 0.98	0.42	0.5	4	26	2	2	nw.	John P. Fischer.
Springview	Keyapaha		17	52.8	+ 5.2	95	28	22	16†	49	0.45	− 1.90	0.25	T.	2	16	7	7	nw.	C. L. Phelps.
Stanton	Stanton	1,472	19	53.3	+ 4.4	99	28	20	5	60	0.66	− 2.27	0.51	3.0	4	17	8	5	sw.	Alfred Pont.
Stratton	Hitchcock	2,804	15								0.60	− 1.40	0.42		2					Miss Stella Vennum.
Superior	Nuckolls	1,574	25								0.22	− 2.60	0.22		1					F. V. Bishop.
Tablerock	Pawnee	1,023	22								0.14	− 2.29	0.05	T.	4	13	12	5	nw.	E. D. Howe.
Tecumseh	Johnson	1,113	32	58.4	+ 5.4	95	29	22	20	66	0.07	− 2.69	0.05	T.	2	11	12	7	sw.	L. E. Pratt.
Tekamah	Burt	1,060	20	53.6	+ 2.5	100	28	23	17	59	0.63	− 2.28	0.22	2.0	5	10	16	4	nw.	Dr. A. D. Nesbit.
Turlington	Otoe	1,214	18	56.0	+ 3.7	96	28	26	17	52	0.17	− 2.20	0.10	1.5	3	16	9	5	nw.	Wm. N. Hunter.
University Farm‖	Lancaster		25	56.2		90	28	28	17†	59	0.05	− 2.40	0.04		2	15	10	5		S. W. Perin.
Valentine	Cherry	2,613	22	51.0	+ 5.6	94	28	21	19	57	0.12	− 2.20	0.12	0.6	2	18	8	4	nw.	U. S. Weather Bureau.
Wahoo	Saunders	1,187	8								0.50		0.30	3.0	3	20	7	3	sw.	W. T. Mauck.
Wakefield	Dixon	1,387	16	52.9	+ 5.1	101	28	21	17	56	0.40	− 2.18	0.25	3.0	4	17	8	5	s.	I. H. Weaver.
Wallace	Lincoln	3,116	14																	Chi., Burl. & Quincy R. R.
Walthill	Thurston		8	52.2		97	28	20	21	56	1.60		1.10	2.0	4					H. L. Keefe.
Watertown	Buffalo	2,299	5								0.60		0.60		1	21	6	3	sw.	R. E. Swift.
Wauneta	Chase		11								0.82	− 1.02	0.40		4					C. D. Fuller.
Weepingwater	Cass	1,080	33	55.8		99	28	24	20	65	0.18	− 2.29	0.14	T.	3	16	5	9	nw.	S. W. Orton.
Westpoint	Cuming	1,313	24	56.0	+ 5.9	100	28	22	17	53	0.80	− 1.75	0.50	3.0	2	20	3	7	s.	J. C. Elliott
Wilber	Saline	1,325	16								T.	− 2.99	T.	T.	0	11	9	10	nw.	Chi., Burl. & Quincy R. R.
Wisner	Cumimg	1,380	14																	Hoff & Deily.
Woodlawn	Lancaster		5								0.03		0.03	T.	1	10	15	5	nw.	H. C. Kendall.
York	York	1 606	21	54.7	+ 2.4	98	28	26	6†	53	0.54	− 2.74	0.49	0.5	3	16	8	6	nw.	A. T. Giauque.

TABLE 1.—*Climatological data for April, 1910. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Iowa.																				
Afton‡	Union	1,212	16	53.5	+ 3.1	91	29	24	17	40	1.16	− 3.21	0.48	.....	7	12	13	5	sw.	N. W. Rowell.
Allerton‡	Wayne	1,513	8	53.2	+ 2.9	90	29	23	24	38	2.26	− 0.94	0.88	1.4	9	14	6	10	nw.	Mrs. Geo. Shriver.
Alton	Sioux	1,305	5	52.5	.....	93	28	20	17	50	1.25	.....	0.69	3.0	3	22	2	6	n.	W. S. Slagle.
Atlantic	Cass	1,164	19	53.9	+ 5.2	94	28	23	17	52	0.30	− 2.76	0.11	1.0	4	8	7	15	nw.	Thos. H. Whitney.
Audubon‡	Audubon	1 301	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Geo. E. Kellogg.
Bedford‡	Taylor	.....	10	53.6	+ 4.3	92	29	22	23	48	1.01	− 1.80	0.32	0.8	9	11	11	8	nw.	E. E. Healy.
Centerville	Appanoose	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.96	.....	1.24	T.	10	15	4	11	w.	Gordon Peacock, jr.
Charlton‡	Lucas	1,042	15	52.8	+ 6.3	89	29	23	17	45	0.42	− 2.71	0.12	2.0	4	15	0	15	se.	C. C. Burr.
Clarinda	Page	1,009	20	52.2	+ 1.3	94	28	24	17	48	1.94	− 1.25	0.98	1.3	7	15	1	14	nw.	A. S. Van Sandt.
Corning‡	Adams	1,117	18	52.6	+ 2.8	93	28	23	17	50	0.21	− 2.92	0.15	T.	2	18	2	10	nw.	Jerome Smith.
Corydon‡	Wayne	1,101	17	53.1	+ 2.1	89	29	24	24	42	2.53	− 0.63	1.50	0.9	9	11	7	12	nw.	Clara Miller.
Creston	Union	1,312	5	52.1	.....	91	28†	24	17†	48	0.79	.....	0.46	.....	7	15	2	13	nw.	Edgar Stovall.
Cumberland	Cass	.....	10	.....	.....	.....	.....	.....	.....	.....	0.20	− 1.89	0.11	T.	3	19	3	8	sw.	J. H. Reppert.
Denison	Crawford	1,180	16	52.6[b]	.....	95[a]	28	21[b]	18	55[b]	0.21	− 3.24	0.09	0.0	4	17	7	6	s.	W. C. Van Ness.
Elliott	Montgomery	.....	5	53.6	.....	93	28	26	23	46	0.32	.....	0.16	T.	3	13	14	3	nw.	Henry Barnes.
Greenfield	Adair	.....	17	53.2	+ 3.4	92	28	22	17	42	1.93	− 1.25	1.45	T.	6	16	10	4	nw.	R. B. Oldham.
Hancock	Pottawattamie	1,113	5	52.2	.....	94	28	22	17	54	.....	.....	.....	.....	.....	15	8	7	nw.	G. C. Rogers.
Harlan‡	Shelby	1,192	11	52.7	+ 4.4	94	28	22	17	55	0.17	− 2.29	0.06	1.2	3	9	14	7	s.	C. A. Reynolds.
Hopeville	Clarke	.....	19	53.8	+ 4.1	90	29	24	17	40	1.14	− 2.09	0.39	.....	9	10	11	9	.....	M. T. Ashley.
Inwood‡	Lyon	1,474	6	51.9	.....	99	28	20	6†	50	1.40	.....	0.60	4.3	7	19	5	6	nw.	F. B. Hanson.
Lamoni	Decatur	.....	3	52.9	.....	90	29	24	17†	38	2.15	.....	0.98	1.2	9	13	5	12	nw.	T. J. Fitzpatrick.
Larrabee	Cherokee	1,266	20	51.6	+ 4.1	96	28	20	17	45	1.12	− 1.60	0.54	5.6	5	18	9	3	sw.	H. B. Strever.
Le Mars‡	Plymouth	1,224	14	52.2	+ 4.2	94	28	20	17	44	0 98	− 2.21	0.36	T.	5	14	11	5	nw.	G. A. C. Clarke.
Lenox‡	Taylor	1,250	15	53.9	+ 3.9	90	28†	23	17	44	0.66	− 2.37	0.25	0.6	7	15	10	5	s.	J. L. Hurley
Leon	Decatur	1,120	8	53.0	+ 1.7	90	29	25	17†	41	1.33	− 2.09	0.25	3.0	10	10	9	11	s.	Morris Gardner.
Little Sioux‡	Harrison	.....	5	54.8[a]	.....	98[a]	28	21[a]	17	52[a]	0.59	.....	0.26	2.5	5	.....	.....	.....	nw.	Geo. H. Gibson.
Logan‡	....do	928	43	54.2	+ 4.3	95	28	22	17	56	0.25	− 2.56	0.20	2.5	3	16	6	8	nw.	Glenn H. Stern.
Massena‡	Cass	.....	4	52.2	.....	91	28†	22	17	51	1.19	.....	0.41	.....	6	12	11	7	nw.	C. E. Smeltzer.
Mount Ayr‡	Ringgold	1,236	17	54 2	+ 3.4	92	29	24	17	43	1.42	− 1.86	0.37	0.5	12	9	10	11	nw.	A. F. Beard.
Odebolt‡	Sac	1,356	13	53.6	+ 5.5	97	28	20	23	53	0.34	− 2.38	0.21	2.0	2	20	5	5	.....	E. Starner.
Onawa‡	Monona	1,051	10	55.8	+ 5.9	97	28	23	17	44	1.15	− 1.33	0.40	2.5	7	21	2	7	nw.	C. G. Perkins.
Pacific Junction‡	Mills	960	11	53.6	+ 3.6	94	28	22	23	57	0.11	− 2.44	0.06	1.1	2	11	16	3	s.	H. H. McCartney.
Rock Rapids‡	Lyon	1,358	11	52.1	+ 5.9	85	27†	15	5	42	0.86	− 1.81	0.60	6.0	2	15	8	7	.....	W. C. Wyckoff.
Sheldon‡	O'Brien	1,422	10	52.4	+ 5.3	98	28	19	17	51	2.45	+ 0.72	0.85	9.5	6	20	5	5	nw.	Dr. A. W. Beach.
Sibley	Osceola	1,212	17	49.0	+ 2.9	94	28	20	17	56	1.26	− 1.07	0.67	5.2	6	19	5	6	nw.	H. G. Doolittle.
Sioux Center‡	Sioux	.....	11	51.6	+ 5.6	94	28	20	17	47	0.85	− 1.35	0.34	4.0	4	15	6	9	nw.	J. de Ruyter.
Sioux City	Woodbury	1,135	21	52.9	+ 4.4	98	28	21	17	44	0.82	− 1.95	0.70	1.2	4	10	12	8	n.	U. S. Weather Bureau.
Thurman‡	Fremont	.....	13	55.0	+ 4.5	95	28	25	17	49	0.13	− 3.28	0.08	.....	4	11	13	6	nw.	C. R. Paul.
Washta‡	Cherokee	1,157	12	51.1	.....	96	28	21	6†	56	0.55	− 1.55	0.30	2.0	5	19	5	6	s.	H. L. Felter.
Woodburn‡	Clarke	961	11	52.0	.....	95	29	22	20	50	0.57	− 2.29	0.34	1.5	8	12	12	6	nw.	C. B. McDonough.
Kansas.																				
Abilene	Dickinson	1,157	15	.....	.....	.....	.....	.....	.....	.....	0.94	− 1.72	0.62	T.	4	12	11	7	nw.	I. H. Sherman.
Agricultural College	Riley	1,109	52	57.8	+ 3.3	99	29	28	6†	58	0.51	− 2.21	0.28	T.	4	15	5	10	nw.	Prof. J. O. Hamilton.
Alton	Osborne	1,651	8	57.4	.....	99	28	24	19	58	0.55	− 1.82	0.45	0.0	2	15	10	5	n.	H. A. Storer.
Atchison	Atchison	973	19	57.6	+ 3.1	95	29	30	18	47	1.31	− 2.44	0.91	T.	5	13	9	8	w.	M. F. Troxell.
Baker	Brown	1,182	10	54.8	.....	94	28†	26	17	56	0.94	.....	0.50	T.	6	9	1	20	s.	E. A. Bastien.
Beloit	Mitchell	1,383	15	.....	.....	.....	.....	.....	.....	.....	0.68	− 1.68	0.39	.....	4	20	4	6	nw.	W. H. Houghton.
Blakeman	Rawlins	2,894	13	52.6	.....	98	28	22	25	56	1.01	− 1.37	0.75	0.0	4	18	7	5	nw.	C. L. Henderson.
Blue Rapids	Marshall	1,105	4	.....	.....	.....	.....	.....	.....	.....	0.71	.....	0.60	T.	5	15	1	14	.....	M. Norton.
Centralia	Nemaha	1,256	1	56.4	.....	96	29	27	23	51	0.32	.....	0.15	T.	6	13	11	6	nw.	L. E. Hasen.
Chapman	Dickinson	1,123	6	57.6[b]	.....	98[b]	29	28[a]	1	58[c]	0.76	.....	0.66	T.	2	19	7	4	n.	R. McShea.
Clay Center	Clay	1,203	9	57.4	.....	97	28†	26	6†	58	0.65	.....	0.45	0.0	3	16	3	11	n.	O. L. Slade.
Colby	Thomas	3,138	19	53.6	+ 2.8	97	28	24	25	52	0.62	− 1.68	0.30	T.	4	17	5	8	n.	R. M. Chelf.
Concordia	Cloud	1,398	26	56.7	+ 3.1	94	28	29	19	51	0.59	− 1.83	0.41	T.	5	10	15	5	nw.	U. S. Weather Bureau.
Densmore	Norton	2,200	1	56.8	.....	102	28	26	6	54	0.46	.....	0.40	0.0	3	17	7	6	nw.	F. S. Griffith.
Dresden	Decatur	2,731	16	54.6	+ 3.4	100	28	26	17	53	0.22	− 2.97	0.08	T.	4	23	4	3	nw.	Jacob Back.
Ellsworth	Ellsworth	1,537	6	57.6	.....	97	29	25	6	54	1.14	.....	0.51	0.0	3	9[a]	15[a]	5[a]	s.	Geo. Seits.
Enterprise	Dickinson	1,144	8	59.2[a]	.....	98[a]	29	30[a]	6†	57[a]	1.00	− 1.66	0 75	T.	3	14[a]	9[a]	6[a]	nw.	C. F. Wagner.
Eskridge	Wabaunsee	1,412	4	58.1	.....	95	29	30	23	43	1.08	.....	0.37	T.	6	13	10	7	n.	Geo. D. West.
Farnsworth	Lane	2,850	9	55.4	.....	100	28	23	25	55	0.42	.....	0.16	0.0	6	14	14	2	s.	C. M. Jennison.
Ft. Scott	Bourbon	857	35	56.2	+ 1.6	92	29	30	26	52	2.13	− 1.93	1.16	T.	10	16	1	13	sw.	E. A. Shaver.
Frankfort	Marshall	1,146	16	57.2	+ 3.1	97	29	24	20	64	0.10	− 3.40	0.05	1.0	2	13	12	5	sw.	E. C. Dunham.
Garnett	Anderson	950	4	57.4	.....	92	29	30	16†	40	0.38	.....	0.27	T.	4	6	16	8	s.	D. D. Judy.
Goodland	Sherman	3,687	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. L. Calvert.
Gove**	Gove	2,750	21	57.1	+ 5.4	95	28	25	6	.....	0.46	− 1.77	0.22	0.0	6	13	15	2	nw.	Jesse Royer.
Hanover	Washington	1,225	13	57.2	.....	97	28	27	6	59	0.20	− 2.85	0.15	0.2	2	17	5	8	n.	August Jaedicke, jr.
Harrison	Jewell	1,804	9	55.6	.....	96	28	24	6	57	0.38	.....	0.37	0.0	2	22	5	3	n.	Mahlon Tegley.
Hays	Ellis	2,000	42	54.4	+ 1.0	95	29	22	6	56	0.91	− 1.43	0.54	0.0	2	14	16	0	nw.	G. K. Helder.
Hill City	Graham	2,134	2	57.8	.....	100	28	25	6	55	0.51	.....	0.40	0.0	3	22	3	5	nw.	I. R. Mort.
Horton	Brown	1,188	21	56.6	+ 2.4	95	29	28	17	49	0.60	− 2.34	0.20	T.	7	12	9	9	nw.	Mrs. S. C. Belden.
Hoxie	Sheridan	2,700	12	55.0	+ 2.9	98	28	25	17	53	0.29	− 2.01	0.10	0.0	4	23	2	5	nw.	C. T. Dallam.
Jewell	Jewell	1,540	5	56.6	.....	97	28	25	19	55	0.39	.....	0.33	T.	3	20	4	6	s.	C. A. Shinn.
Lawrence	Douglas	997	42	57.0	+ 2.2	94	29	31	18	43	1.69	− 1.37	0.63	T.	10	13	9	8	n.	Prof. H. P. Cady.
Lebanon	Smith	1,812	12	57.6	.....	98	28	28	24	52	0.66	− 1.17	0.64	0.0	2	19	4	7	n.	Earl V. Bower.
Lindsborg	McPherson	1,333	4	.....	.....	.....	.....	.....	.....	.....	1.71	.....	0.78	.....	4	22	1	7	n.	J. R. Lynch.
Mankato	Jewell	1,784	1	55.4	.....	96	28	27	19	46	0.41	.....	0.41	T.	1	18	4	8	ne.	R. M. Cauthorn.
Minneapolis	Ottawa	1,259	20	57.5	+ 2.6	93	29	28	6	51	1.13	− 1.02	0.59	0.0	3	18	3	9	n.	J. L. Steele.
Moran	Allen	1,098	14	58.0	+ 2.5	94	29	29	26	46	1.55	− 1.92	0.58	T.	4	10	9	11	nw.	C. J. Norton.
Matoma	Osborne	1,834	1	.....	.....	.....	.....	.....	.....	.....	0.75	.....	0.45	0.0	2	27	3	0	s.	C. O. Hunt.
Norton	Norton	2,284	12	57.5	+ 6.2	100	28	28	19	46	0.29	− 2.86	0.29	0.0	1	19	9	2	nw.	Sim Sieffel.
Oberlin	Decatur	2,539	23	.....	.....	.....	.....	.....	.....	.....	0.51	− 2.51	0.19	0.0	5	23	5	2	nw.	I. K. Huber.
Oketo‡	Marshall	1,194	2	57.7	.....	96	28	28	30	60	0.10	.....	0.05	0.2	3	10[a]	11[a]	8[a]	nw.	J. A. Church
Olathe	Johnson	1,032	15	56.6	+ 2.6	96	29	30	20†	49	1.56	− 1.76	0.77	T.	11	11	8	11	sw.	Dr. S. B. S. Wilson.
Osage City	Osage	1,081	11	58.0	.....	95	29	29	20	53	1.19	− 1.73	0.35	T.	8	13	4	13	nw.	W. C. White.
Ottawa	Franklin	926	16	56.4	+ 2.2	96	29	25	20	57	1.31	− 1.83	0.49	T.	6	6	18	6	nw.	Dr. W. J. Newton.
Phillipsburg	Phillips	1,939	19	58.0	+ 5.2	101	28	27	19	56	0.72	− 1.56	0.33	0.0	3	21	7	2	nw.	N. E. Bailey.
Plainville	Rooks	2,156	5	57.0	.....	84	3	26	6	53	0.76	.....	0.70	0.0	2	22	6	2	s.	John Pedroja.
Pleasanton	Linn	862	8	55.9	.....	88	29	31	20	41	3.35	.....	0.90	T.	7	15	7	8	sw.	B. F. Blaker.
Republic	Republic	1,495	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Grafton Nutter.
Russell	Russell	1,834	11	57.2	+ 3.6	95	28	25	6	54	1.69	− 1.37	0.96	0.0	3	16	10	4	nw.	Robert Brebner.
St. Francis	Cheyenne	3,288	2	53.8	.....	97	28	24	1†	54	0.53	.....	0.27	T.	5	14	8	8	nw.	J. E. Uplinger.
Salina	Saline	1,227	26	58.5	+ 3.5	93	28†	29	6	50	1.33	− 1.35	0.65	T.	3	16	12	2	nw.	Prof. A. W. Jones.
Scott	Scott	2,971	4	56.0	.....	96	28	24	1	56	0.79	.....	0.40	T.	5	17	10	3	n.	J. P. Loughran.
Smith Center	Smith	1,800	.....	.....	.....	.....	.....	.....	.....	.....	0.51	.....	0.25	0.0	3	20	6	4	n.	W. H. Nelson.
Topeka	Shawnee	997	24	56.8	+ 3.1	95	29	33	16	44	0.66	− 2.06	0.23	T.	10	12	13	5	nw.	U. S. Weather Bureau.
Valley Falls	Jefferson	913	11	57.3	+ 4.0	96	29	28	20	54	0.82	− 1.43	0.30	T.	6	11	13	6	nw.	Miss Nettie Maxwell.
Vinland‡	Douglas	880	1	56.9	.....	94	29	29	20	48	1.78	.....	0.47	T.	9	12	7	11	nw.	A. Schick.

TABLE 1.—*Climatological data for April, 1910. District No. 6*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	
Kansas—Cont'd.																			
Wakeeney	Trego	2,456	27	57.1	+ 3.7	98	28	28	17†	49	0.23	− 1.85	0.09	0.0	4	23	5	2	n.	A. S. Peacock.
Wallace	Wallace	3,303	40	53.2	.....	96	28	19	1†	58	0.48	− 1.34	0.35	T.	3	9	19	2	.....	M. T. Griggs.
Wamego	Pottawatomie	1,092	17	.....	.....	.....	.....	.....	.....	.....	0.27	− 2.84	0.15	T.	4	11	9	10	nw.	M. L. Stone.
Missouri.																				
Amoret	Bates	850	1	56.8	.....	92	29	31	26	41	4.31	.....	1.30	T.	8	10	6	14	nw.	Darby Fruit Farm.
Appleton City	St. Clair	853	20	56.0	− 0.2	88	28	31	20	41	3.57	− 0.79	1.30	3.0	6	13	12	5	s.	T. C. Brown.
Arlington	Phelps	695	20	.....	.....	.....	.....	.....	.....	.....	2.58	− 1.27	0.46	T.	11	16	2	12	nw.	P. W. Andres.
Arthur	Vernon	767	18	56.3	+ 1.5	84	21	32	25	37	2.87	− 1.25	1.02	T.	6	5	18	7	sw.	J. T. Armstrong.
Avalon	Livingston	.....	25	54.8	+ 2.2	93	29	25	24	38	2.56	− 1.44	1.46	0.0	7	8	13	9	sw.	F. G. Ashbaugh.
Bagnell	Miller	594	15	.....	.....	.....	.....	.....	.....	.....	5.38	+ 1.99	1.20	0.0	12	15	6	9	w.	W. S. Brockman.
Bethany	Harrison	881	20	53.6	+ 2.9	92	29	28	24†	44	1.51	− 1.62	0.99	T.	3	11	11	8	sw.	W. H. Skinner.
Bolivar	Polk	1,070	22	55.4	− 0.6	87	29	28	24†	40	3.59	− 0.27	1.40	1.2	13	12	14	4	sw.	E. Waltz.
Boonville	Cooper	600	34	.....	.....	.....	.....	.....	.....	.....	3.04	− 0.96	1.00	0.0	11	15	2	13	nw.	C. Randecker.
Brunswick	Chariton	652	32	53.6	− 0.7	92	29	28	24	46	3.32	+ 0.12	0.83	0.5	10	12	5	13	nw.	Louis Benecke.
Clinton	Henry	800	24	56.8	.....	90	29	31	19	43	4.99	− 0.81	1.63	T.	13	11	16	3	s.	Dr. G. W. Menees.
Columbia	Boone	784	21	54.0	− 0.3	91	29	27	24	37	3.82	+ 0.12	1.69	T.	15	10	7	13	sw.	U. S. Weather Bureau.
Conception	Nodaway	982	26	54.6	+ 2.7	92	29†	26	17	39	1.39	− 1.47	0.58	0.5	6[c]	10	11	9	nw.	Fr. Adhelm Hess.
Darksville	Randolph	826	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. Broaddus.
El Dorado Springs	Cedar	759	5	55.9	.....	90	29	30	24	41	3.43	.....	1.60	1.5	7	10	7	13	n.	Samuel Graham.
Fairport	De Kalb	920	16	.....	.....	.....	.....	.....	.....	.....	2.12	− 0.88	0.70	0.7	5	12	6	12	sw.	J. W. Lincoln.
Fayette	Howard	725	27	54.1	− 1.1	93	29	27	24	37	2.57	− 0.85	0.79	1.5	8	10	5	15	.....	Prof. T. Berry Smith.
Fulton	Callaway	818	19	53.5[f]	.....	91[f]	29	26[d]	24	41[f]	3.37	− 0.71	1.30	1.6	15	7	13	10	sw.	Dr. J. L. Brenneman.
Gallatin	Daviess	803	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. W. P. Young.
Glasgow	Howard	618	33	.....	.....	.....	.....	.....	.....	.....	4.57	+ 1.46	1.34	0.0	12	16	1	13	se.	J. J. Shaughnessy.
Grant City	Worth	1,130	18	54.9	.....	93	29	26	23†	41	1.70	− 1.35	0.69	1.0	7	19	4	7	nw.	W. H. Campbell.
Harrisonville	Cass	912	38	54.3	+ 0.3	92	29	32	20†	52	4.29	+ 0.75	1.45	2.5	12	9	3	15	sw.	A. J. Sharp.
Hazelhurst	Livingston	.....	17	.....	.....	.....	.....	.....	.....	.....	2.32	− 0.80	1.55	0.9	9	.....	.....	.....	.....	W. H. Baker.
Hermann	Gasconade	482	36	.....	.....	.....	.....	.....	.....	.....	2.56	− 1.05	0.76	T.	15	10	13	7	e.	C. T. Maushund.
Houston	Texas	1,280	18	54.2	− 1.6	89	29	25	24†	51	3.05	− 1.61	0.70	4.0	10	6	19	5	nw.	E. Dempsey.
Huntsville	Randolph	790	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. H. Hammett.
Jefferson City	Cole	628	29	52.7	− 2.0	91	29	24	25	48	3.12	− 0.34	0.90	0.7	15	16	2	12	s.	Miss Emma Swift.
Kansas City	Jackson	963	21	56.0	+ 1.7	95	29	30	24	33	2.35	− 0.94	1.19	0.1	11	9	13	8	nw.	U. S. Weather Bureau.
Kidder	Caldwell	1,017	20	54.9	+ 2.4	93	29	28	24†	39	1.83	− 1.40	0.85	T.	8	17	2	11	sw.	J. F. Sharp.
Lamonte	Pettis	863	22	54.2	.....	89	29	27	24	38	4.93	+ 1.36	1.72	4.0	11	9	10	11	sw.	J. R. Wade.
Lebanon	Laclede	1,265	22	54.7	− 1.7	89	29	26	24	36	2.82	− 1.88	0.80	2.0	9	11	9	10	nw.	M. W. Serl.
Lexington	Lafayette	813	27	55.4	+ 1.2	93	29	29	24	36	4.17	+ 0.96	1.16	0.0	10	17	0	13	s.	J. W. Keithley.
Liberty	Clay	864	22	57.9	+ 3.0	97	29	30	23	45	1.66	− 1.59	1.18	T.	5	12	10	8	nw.	W. C. Wilmott.
Lockwood	Dade	1,088	16	55.9	.....	83	28	30	24	37	2.46	− 0.97	0.83	0.5	8	13	2	15	nw.	C. S. Crow.
Marshall	Saline	779	20	55.4	+ 1.4	92	29	27	24	40	4.58	+ 1.10	1.55	T.	9	20	0	10	sw.	Dr. W. H. Black.
Marshfield	Webster	1,492	2	53.5[f]	.....	86[f]	29	27[f]	24†	42[f]	2.91	.....	0.92	1.0	9	9[e]	6[e]	10[e]	sw.	Dr. J. P. Keller.
Maryville	Nodaway	1,160	20	51.9	+ 1.4	93	29†	27	24†	44	1.37	− 1.91	0.44	0.5	8	16	1	13	nw.	J. R. Brink.
Mount Vernon	Lawrence	1,480	34	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. O. H. Brown.
Nevada	Vernon	860	16	.....	.....	.....	.....	.....	.....	.....	4.95	+ 1.49	2.13	T.	7	15	11	4	sw.	C. Jewell.
New Palestine	Cooper	795	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. I. Zeigle.
Oregon	Holt	1,113	55	54.9	+ 2.4	91	29†	26	17	39	1.42	− 1.96	0.90	T.	6	15	8	7	nw.	Tom Curry.
Osceola	St. Clair	738	11	.....	.....	.....	.....	.....	.....	.....	3.27	− 0.92	1.43	0.0	11	15	12	3	nw.	W. E. Matthews.
Rolla	Phelps	1,092	29	55.0	.....	90	29	26	24	38	2.50	− 1.95	0.69	0.5	16	11	2	17	sw.	Prof. P. J. Wilkins.
St. Charles	St. Charles	614	32	56.4	+ 1.1	90	29†	26	24	38	3.59	+ 0.19	0.81	1.5	12	9	4	17	nw.	L. C. Saeger.
St. Joseph	Buchanan	825	39	55.6	.....	93	29	30	17	41	1.82	− 1.31	0.55	T.	12	9	14	7	nw.	U. S. Weather Bureau.
St. Louis	.....	567	39	55.7	− 0.4	89	29	25	24	31	4.09	+ 0.57	1.19	2.3	15	11	4	15	nw.	U. S. Weather Bureau.
Sublett	Adair	1,000	30	52.8	+ 1.2	89	29	24	24	39	2.55	− 0.99	2.00	1.0	5	7	9	14	sw.	Lewis Spriggs.
Trenton	Grundy	812	15	55.8	+ 3.3	92	29	26	24	32	2.11	− 0.91	1.01	T.	9	11	2	17	se.	J. H. Flesher.
Unionville	Putnam	1,072	17	51.6	+ 0.6	90	29	23	24	40	3.32	− 0.28	1.70	3.0	9	15	3	12	s.	Geo. W. Davis.
Warrensburg	Johnson	883	32	57.3	+ 1.4	91	29	30	24	35	4.78	+ 1.83	2.27	0.0	9	13	7	10	sw.	A. F. Smithson.
Warrenton	Warren	865	20	53.7	− 1.3	92	29	25	24	41	3.21	− 1.62	0.58	2.0	14	7	8	15	s.	Dr. John H. Frick.
Warsaw	Benton	700	6	57.8	.....	94	29	27	20	51	3.38	.....	1.30	T.	9	8	15	7	sw.	Dr. J. R. Smith.
Wheatland	Hickory	920	18	.....	.....	.....	.....	.....	.....	.....	4.24	− 0.46	1.19	1.5	12	11	11	8	s.	Mrs. S. A. Jackson.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for April, 1910. District No. 6, Missouri Valley.*

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Wyoming.																																	
Arapahoe	Big Horn.																																
Barnum	Powder											T.	.25	.20								1.00								T.	.65		2.10
Basin	Big Horn	.03		.11										.03																			0.17
Bennett	North Platte																																
Big Creek	...do			.18								T.		.15	.11	.06						.02									.03		0.55
Casper	...do																																
Cheyenne	South Platte				T.						T.	T.		.04	.24	.03														.55	.28		1.14
Chugwater	North Platte				T.										.20																.60		0.80
Clark	Clark's Fork	T.	T.								T.	T.		.39	.24						.14									.32	.09		1.18
Cody	Big Horn	T.											T.	.20	.30															T.			0.50
Crystal Lake	South Platte																																
Dome Lake	Tongue			.80									T.	1.00	.60							.40								.20	.10		3.10
Douglass	North Platte																																
Dubois	Big Horn												.28														.26				T.		0.54
Eaton's Ranch	Tongue													.65	.20															.47	.38		1.70
Echeta	Powder	.10		T.									T.	T.	.50						.08									.12	.10		0.90
Elk Mountain	North Platte			.10											.36							.42									.05		0.93
Encampment	...do			T.	.01								T.	T.	.03	T.						.20									.07		0.31
Ervay	...do			.02								T.	T.	.10	.45						.50										.05		1.12
Fort Laramie	...do														.37	.04															.17		0.58
Fox Creek Station	...do																																
Gillette	Powder			T.								T.	T.	.02	.31	T.						.10									1.06		1.49
Granite Canyon	South Platte																																
Hunters Station	Powder	.32		.20							.04			.42	.08															.28	.22		1.56
Hyattville	Big Horn																																
Kirtley	Niobrara														.20																		0.20
Kirwin	Big Horn																																
Knowles	Belle Fourche	T.		T.	.11								.15	.73	1.17																.41		2.57
Lander	Big Horn		T.	.08								T.	T.	.18	.61						T.	.06								.25	.12		1.30
Laramie	North Platte			.01							T.			.16	.01	T.					.02									.75			0.95
Leo	...do			T.	.07								T.	T.	.37	.10						.09											0.63
Lolobama Ranch	Big Horn													.60	.10																.20		0.90
Lovell	...do			.03										.25	.01															.07	.03		0.39
Lusk	Niobrara													.30	.30																		0.60
Luther	South Platte														.25																.75		1.00
Manville	Niobrara											.05				.40	.20														T.		0.65
Moorcroft	Belle Fourche				.10										.10							.10									.20		0.50
Moore	North Platte				T.							T.	T.	T.	.26	.02						T.									.58		0.86
Newcastle	S. Fork, Cheyenne	T.													.45	.30														T.	T.		0.75
Pathfinder	North Platte			T.										T.	.51							.90											1.41
Phillips	...do												T.		.40																T.		0.40
Pine Bluff	South Platte																																
Powell	Big Horn													.09	.03															.10			0.22
Rawlins	North Platte			T.								T.	.01	T.	.23	T.						.15									.02		0.41
Riverton	Big Horn													.98	.15																.20		1.33
Saratoga	North Platte											T.	T.	.07	.13	T.						.30									.70		1.20
Sheridan	Tongue			.10							T.			.60	.03						.02								.07	.14	.23		1.19
Shoshone Dam	Big Horn																																
Soldiers' Home	Powder	.15		.10										.75	.07															.15	.23		1.45
South Pass City	North Platte		T.	.03	.08								.02	.01	.17	T.						.10									T.		0.41
Thermopolis	Big Horn			T.								.10		.49	.03						T.									.01			0.63
Upton	Cheyenne																																
Valley	Big Horn	.25													.10															.09			0.44
Verona	Tongue			.01							T.			.83							T.												0.84
Wiley	Big Horn			.13								T.	T.	.25		.33														T.	.14		0.85
Wyncote	North Platte														.65																.12		0.77
Yellowstone Park	Yellowstone	.16	.24	.09	.01							T.	T.	.06	T.						.23						T.	.16	.16	.08			1.19
(1) Fountain Hotel	Madison																																
(2) Grand Canyon	Yellowstone		.50	.70				T.						.16																.20			1.66
(3) Lake Hotel	...do	.43	.46	.60										.10																.12			1.71
(4) Norris Basin	...do		.52																											.25			0.77
(5) Riverside	Madison																																
(6) Soda Butte	Yellowstone	.13	.16	.44											T.															.25			0.98
(7) Sylvan Pass	Big Horn	.56	.30	.54																										.30			1.70
(8) Thumb	Yellowstone	.39	.93					.34																					.05	.14			1.85
(9) Tower Falls	...do	.02													.03						.11									.22			0.38
(10) Upper Gey. Basin	Madison																																
Montana.																																	
Adams	Yellowstone			.01	.03									.34	.06															.58	.05		1.07
Adel	Missouri		.09	1.80				T.	.05	.05		T.			.15												T.	.35	.32	T.			2.81
Agricultural College	Gallatin	T.	T.	.62		T.				T.		T.	.09	T.							T.						T.	.15	.98	.02			1.86
Augusta	Sun River			T.																									.09				0.09
Babb	Milk River		.32											T.							T.							T.		1.25			1.57
Bald Butte	Missouri		.30	.09					.01						T.													.06					0.46
Big Creek	Yellowstone			.38	.04								.09	.06	.05															.88			1.50
Big Timber	...do			.20								.20																		.26			0.66
Big Timber Creek	...do		.05	.06			.02				.01	.03	.02		.01													.11	.32	.17			0.80
Billings	...do			.08										.40	.10													T.	.90	T.			1.48
Boulder Nursery	Jefferson	T.	T.	.30					.05	T.	.52		T.		.10												T.	.27		T.			1.24
Bowen	...do		.08	.01								.02			T.												.02	.12					0.25
Bridger	Yellowstone													T.	.15													T.	.38	.07			0.60
Broadview Exp. Sta	...do			T.								T.	.45	.30														.13	.82	.10			1.80
Busby	...do			.06										.75	.05														.54	.04			1.44
Busteed	...do			.32								.04	.01	.01	T.													T.	.50	.21			1.09
Butte	Jefferson	T.	T.	.10		T.	T.	T.	T.	T.	T.	T.	T.															.10	T.	T.			0.20
Canyon Ferry	Missouri	.02		.09				T.		.19																		.14	.48				0.92
Cascade	...do	T.	T.	.38				.01	T.	.08																	T.	.22	.01				0.70
Cataract Creek	Jefferson																																
Chessman Reservoir	Missouri		.06	.34				T.	.03	T.		T.	.03	.04														.33					0.83
Chester	...do																																
Chinook	Milk River		T.							.05		T.		T.																			0.05
Chouteau	Missouri																																
Clear Creek	Milk River		.04	.05					.30	.04		.17	.06	.10														T.		.10			0.86
Clemons	Missouri		.04	.07	T.				T.																			.05		.01			0.17
Copper	Musselshell	T.	.15	.55	T.						T.			.07	.03													.70	.08	T.			1.58
Crow Agency	Big Horn																																
Culbertson	Missouri			T.										.08																.02	.03			0.13
Cut Bank	Marias									T.																		T.						T.
Decker	Tongue															.50															.20			0.70
Deep Creek	Missouri																																
Delphine	Musselshell	T.	.07	.10	T.						.01	T.	T.	.01	T.													.35	.08	.10			0.72
Denton	Missouri																																
Dillon	Jefferson	T.	.02	.01	.02				.03	.04	.01	.03	.02	.01							.01	.03	T.					.12	.13	T.			0.48
Dirty Creek	Musselshell		.04	.28						.02		.03	T.	T.														.48	.17	.04			1.06

TABLE 2.—*Daily precipitation for April, 1910. District No. 6*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Montana—Cont'd.																																	
Dry Creek	Missouri																																
Dry Wolf Camp	do			1.00					.01		T.	.01	T.		.60													T.	.39	.18	.09		2.28
East Gallatin River	Gallatin			1.03										T.	.03						T.							T.	.39	.48	.14		2.07
Ekalaka	Little Missouri				.09										.45														.30				0.84
Elkhorn	Jefferson		.17	.52	T.		T.		.03	.05	.01	.01	.04	.02	.10	.02												T.	.22	.15	.08		1.42
Evans	Missouri																																
Fallon	Yellowstone			T.										.44																.60	.06		1.10
Family	Marias																												T.		T.		T.
Fish Creek	Jefferson		T.		.86	T.		T.				.14						T.			T.						T.	T.		.48		1.48
Fishtail Creek	Yellowstone	T.		.03										.13	.02															1.13			1.31
Flathead Creek	do		.60	1.65									.02	.21														1.30	.60				4.38
Forsyth	do		.06	.15										.63															.63	.26			1.73
Fort Benton	Missouri		.35				.20							.25																.15			0.95
Fort Shaw	Sun River		T.	T.						T.	T.																		.02	T.			0.02
Foster	Big Horn																																
Garnell	Musselshell	T.		1.20							.52	.03	.03	.60	.10													1.20	.02	T.			3.70
Glendive	Yellowstone			T.										.37	.23														.56	.44				1.60
Goldbutte	Marias							.17				.15			.03															.07				0.42
Graham	Powder	.05		T.	.16						.01		.01	T.	.22																T.			0.45
Grayling	Madison	.05	.12	.09																	.08								.10	.32	T.			0.76
Great Falls	Missouri		T.	.61					T.	.01	T.		.08		T.													T.	.21	.16	.12			1.19
Half Moon Pass	Musselshell			.06				.01			.02	T.	.01	.01	.03							T.							.90	.70	.01			1.75
Half Way House	Missouri	.04	.32	.93									.33																.49	.32				2.44
Harlowton	Musselshell												T.																.10	.60				0.70
Hassel	Missouri	T.	T.								.05		.15	.05															.30		.04			0.59
Havre	Milk River	T.	.01							.21		.02	.15		.03													.01	T.	.05	T.			0.48
Helena	Missouri	.03	.01	.04					T.	T.	.01	.02		T.	T.													.01	.21	.01				0.34
Highwood	do		T.	.15					T.	T.	T.	.20			.03														.40					0.78
Homepark	Jefferson	T.	.23	T.							.20			.08							.02							.09	.47	.39				1.48
Huntley	Yellowstone	.58			.25																									.89				1.72
Jones Canyon	Gallatin			.76									.04	.12	.05						T.						T.	.09	.61		.36			2.03
Jordan	Missouri			.11																														0.11
Kleinsmith Creek	Jefferson			T.			T.				T.			.02	T.														.63					0.05
Lewiston	Missouri		T.	1.07					.01		T.	T.	T.	T.	.02														.52	.11	T.			1.73
Livingston	Yellowstone	T.	.09	.20							T.		T.	.10	T.													T.	.09	.74	.03			1.25
Lodge Pole Creek	do			.85										T.	.40														.30	.30				1.85
Lonetree	Missouri			.85							.10		.27		.08													.05	.15	.26				1.76
Lost Horse Creek	Musselshell	T.	.23	.14							T.	T.	T.	T.	T.													.02	.48	.30	.30			1.47
Malta	Milk River			.65					T.	T.			.04																.02	T.	T.			0.71
Meadow Creek [1]	Madison		.15	.25			T.		T.		.16		T.		T.														.07	.04	.02			0.69
Melstone	Musselshell			.90										.08														.07	.10					1.15
Mildred	Yellowstone			.32									T.	.37	T.													*	.47		.55			1.71
Miles City	do		T.	.03							T.		.01	.28															.15	.50	.38			1.35
Mill Creek	do		2.04	.05	.04	1.02								2.02										*	*	*	*	*	*	*	1.00			6.17
Moore	Missouri			.40				.10	T.			.26		.06															.47	.27				1.56
Mudd Creek	Jefferson																																
Norris	Madison	T.	T.	.10			T.				.25			.10																1.05				1.50
Nye	Yellowstone			.30									.08	.17							.03									.40	.35			1.33
Olsen Creek	Jefferson	.06	.10	.20							.03		.02																.35					0.76
Pipestone Pass	do	.15	.11					.07	T.				.33	T.							T.						T.		.29					0.95
Poplar	Missouri			.95					T.				T.	T.																.29	T.			1.24
Raymond	do		T.	T.					T.			.10			T.													T.			T.			0.10
Red Lodge	Yellowstone			.04										.14	.20															.95	.60			1.99
Reese Creek	Gallatin		*	1.26										.12														.42	.94					2.74
Renova	Jefferson		.06	T.							.08		.21	.10														.40	.07	T.				0.92
Rimini	Missouri			.33	T.									.04		T.												.25	T.					0.62
Ryegate	Musselshell			T.								T.	T.															T.	.40	.40	.22			1.02
Sedan	Yellowstone																																
Springbrook	do		.10	.70					T.					.29	T.														T.	.50	T.			1.59
Stearns	Missouri				*		.46																						.15					0.61
Three Forks	Madison	T.	.13	.06							.10	.01	.10																.60	.36				1.36
Tokna [1]	Yellowstone		T.	T.									*	.59	.03														.43		.08			1.13
Townsend	Missouri		.05											.10																.33				0.48
Trail Creek	Yellowstone		.18	.27							.10		.13	.38	.06														.40	.83				2.35
Utica	Missouri																																
Valentine	Musselshell			.60								T.	.06		T.														.33	T.				0.99
Virginia City	Jefferson & Madison	T.	.26	.23							T.		T.	.04	.03													T.	.56	.40	T.			1.52
Wall Rock Mountain	Missouri		.05	.71			T.	T.	T.																				.68	.36	.02			1.82
Warm Springs Creek	Madison	*	.10	.28			.03			*	.00		.05	.09	.08	.01					.01							*	.21	.55	.02			1.52
West Rosebud Creek	Yellowstone		.05								.02		.08	.32	.04															.84	.50			1.85
Willow Creek	do		T.		.31																									.35				0.66
Wolf Creek	Missouri																																
Wolf Point	do			.29						.18																		.15					0.62
Woodville	Jefferson	.01		.33					T.	.01			.01	.01														.27					0.64
North Dakota.																																	
Aplin	Knife													.45																.06			0.51
Beach	Little Missouri				.15								.33	.49	.01														.38	.05				1.41
Berthold Agency	Missouri											.03	.18	.21							T.	T.							.47	T.				0.89
Bismarck	do				T.								.01	.52	.05	T.	T.												.01					0.59
Broncho	Knife												.19																.35					0.54
Buford	Missouri				T.								.47	T.														.37	T.					0.84
Coal Harbor	do													.90	.05														.20					1.15
Dickinson	Hart				.30							T.	.20	.70								T.	T.						.51	T.				1.71
Edgely	James													1.48	T.	T.	T.																	1.48
Ellendale	do																																
Epping	Missouri												.50	1.75															.68	.06				3.05
Fullerton	James												T.	.49	.18	.20	.45	.18											.68	.06				1.50
Haley	Grand												.11	.81	.86														.05					1.83
Hettinger	Cannon Ball													.04															.03					0.07
Howard	Missouri		T.	.01					T.					.35								T.					T.	.27	.02				0.65
Jamestown	James													.85	T.	*	.60																	1.45
Lamoine	Missouri														T.														.67					0.67
LaMoure	James																																
Mc Henry	do													.55	.10	.10													.16					0.91
Manfred	Sheyenne													.65	.10	.10	T.												.20	T.				1.05
Marmarth	Little Missouri				.03								.02	1.27															.24	.07				1.63
Marstonmoor	James													.50	.12	.10	.05												T.	T.				0.77
Medora	Little Missouri			T.									T.	*	1.39														2.06	T.				3.45
Melville	James													.15			.60	.40													.28				1.43
Mott	Cannon Ball				.01									.33	.21						.02								.28	.09				0.94
Napoleon	Missouri													1.03	.10	.05													T.					1.18
New England	Cannon Ball												.02	.08															.15					0.25
New Salem	Heart												T.	.31	.10	T.	T.					T.							.02					0.43
Orange	Cannon Ball													45	.01								.03						T.	.05				0.54

TABLE 2.—*Daily precipitation for April, 1910. District No. 6*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
North Dakota—Cont'd.																																	
Palermo	Missouri																																
Schafer	Little Missouri													T.	.90						.04									.85	.10		1.89
Steele	Missouri																																
Swartwood	Grand																																
Washburn	Missouri													T.	.45	T.														.17	T.		0.62
Williston	do			.02						.08				.62	.10							.03							.01	.42	.05		1.33
Wishek	do				T.										.25	T.	.05	T.															0.30
South Dakota.																																	
Aberdeen ‖	James											T.	T.	T.	T.	.50	.78	.50	.50														2.28
Academy	Missouri														.70	.15	.06	.30	.18				T.										1.39
Alexandria	James			.03											1.36	*	*	.61				T.											2.00
Ardmore ‖	Cheyenne														1.00																		1.00
Armour	Missouri																																
Belle Fourche	do																																
Bowdle	Missouri																																
Brookings	Big Sioux			.80											.42	.72	.10	.20	.10														2.34
Burke	Missouri																																
Canton	Big Sioux				.20							T.			.87	.76	T.	.16	T.														1.99
Cascade Springs	Cheyenne														.83																		0.83
Castlewood	Big Sioux			T.	.26	T.							T.	T.	.46	.40	.12	.35	.03			T.											1.62
Centerville	Missouri				T.							.38			.62	.08	.07	.15	.04														1.34
Chamberlain	do														.59	.04		.18															0.81
Clark	James			.03	.08								T.		.86	.40	.20	.20				T.											1.77
Clear Lake	Big Sioux																																
Cottonwood	Missouri										T.				.56	.34														.22			1.06
Daviston	Grand														.45		T.																0.45
Deadwood	Cheyenne				.45									.60	2.25																.20			3.50
Deerfield	do	.16		T.	.02						.16	.04			.34	.30															.04			1.06
De Smet	James				T.								T.		1.02	T.	*	*	.90															1.92
Dowling	Cheyenne	.05			T.									*	.75	.20														T.	.20			1.20
Dumont	do	.17		.02	.79								T.	.22	2.63	.43															.41			4.67
Elk Mountain	do														.80																T.			0.80
Elk Point	Missouri																																
Ellingson	Grand																																
Englewood	Cheyenne	.28			.24						.05		.06	.55	1.41	.11						T.								T.	.07			2.77
Eureka	Missouri														.62	.10	T.	.10															0.82
Faulkton	James														*	1.58	.03	.20															1.81
Flandreau	Big Sioux				.25										.60	.90	.20	.20															2.15
Forestburg	James			.08											.53	.20	.20	.35															1.36
Fort Meade	Cheyenne				T.							T.		1.10	.56	.40	T.													T.	T.			2.09
Frederick	James														.87	.40		.52															1.79
Gannvalley	Missouri			T.											1.25	.02	.08																1.35
Greenmont	Cheyenne			2.95										.53	3.99																.21			7.68
Greenwood	Missouri			T.	T.									T.	.26	.08	T.	.30																0.64
Hardy Ranger Station	Cheyenne	.17			.45							T.		*	1.80	.16														.08	.12			2.78
Harveys Ranch	do		T.		.90							T.	T.	T.	T.	1.10															T.			2.00
Hermosa	do														.45																			0.45
Highmore	Missouri													.11	.87	.20	.10	.10				.02												1.40
Hill City	Cheyenne	.09													.49	T.														T.	.11			0.69
Hopewell	do				T.											.25																		0.25
Howard	James				.06							T.			.70	.08	.10	.32	.04			T.												1.30
Howell	do				T.										.66	.03	.09	.20	.01				T.											0.99
Huron	do			.08											.42	.11	.06	.22	T.			T.												0.89
Ipswich	do										T.				1.28	T.	.10	.12																1.50
Kadoka	White														.28	.06															.12			0.46
Kennebec	Missouri														.80	.10	.10	.05																1.05
Kidder	James			T.	T.										.55	.42	.39	.47																1.83
Kimball	Missouri			T.	T.										.53	.10		.17					.01											0.81
La Delle	James			.35	.15										.10	.72	.22	.30	.03															1.87
Lead	Cheyenne			.12							.04		.02	.39	2.46	.38															.18			3.59
Lemmon	Grand												T.		.34	T.														T.	.20			0.54
Leslie	Cheyenne																																
Marion	Missouri				T.							T.			.05	T.	T.	.43	T.															0.48
Marston	do														.32																			0.32
Mellette	James	.07		T.									T.		.42	.10	.05	.25				T.												0.89
Menno	do														T.		.30	.55	.21															1.06
Milbank ‖	Minnesota	.11			.19										T.	.96	.75	.07	.04															2.12
Mitchell ‖	James			.05											*	.07	.61	.30	.24															1.27
Murdo	White														.50																T.			0.50
Oelrichs	Cheyenne													*	.75																			0.75
Orman	do														*	1.14															.41			1.55
Ottumwa	Missouri														.12	.20		T.													.14			0.46
Pierre	do	T.												T.	.51	.07		T.					.61											0.59
Plankinton §	James			.02	T.										.52	.10	.20					T.	T.											0.84
Rapid City	Cheyenne	.17			T.						T.				.21	.33														T.	.03			0.74
Redfield ‖	James															.45	.40																	0.85
Rochford ‖	Cheyenne				.35					.14	T.	T.	T.	.60	.20															T.	.12			1.41
Rosebud	White				.10								T.	.22	.60		T.														T.			0.92
Roslyn	Big Sioux		T.	.52	T.										.95	.20	.20	.30	.05															2.22
Savoy	Cheyenne				.05							T.	T.	.39	2.31	.20															.20			3.15
Selby	Missouri														*	.84		T.																0.84
Sioux Falls	Big Sioux		T.									.08			1.10	.20	.10	T.	T.															1.48
Spearfish	Cheyenne				.10										1.50															.12				1.72
Stephan	Missouri													*	.87	*	.07	.20	.03															1.17
Tama	Cheyenne													T.	.50	.02														T.	.14			0.66
Vale	do				T.									T.	1.34	.15															.45			1.94
Vermilion	Missouri														.24	.06	T.	.60	T.															0.90
Waters Ranch	Cheyenne				.07									.38	1.15	.07															.54			2.21
Watertown	Big Sioux			T.											*	*	1.75	*	1.09			T.												2.75
Wentworth	do				.32										.52	.11	.13	.43	.13															1.64
Wessington Springs	James																																
White Lake	Missouri													.50			T.	T.																0.50
Yankton	do										.03				.17	.04	.11	.23	.04				T.											0.62
Minnesota.																																	
Pipestone	Big Sioux				.25											.85	.10		T.															1.20
Colorado.																																	
Akron	Republican			T.								.02	1.46	.03						T.											.50			2.01
Alma	South Platte												.43				.17																	0.60
Arriba	Republican											T.	1.19	.09	.01						.10									.05				1.44
Auldhurst	South Platte							T.		T.	.08	.22	.48	.17							.73				T.	T.				.26	.16			2.10
Barker	do																																
Boreas	do				T.						.22		.14	.02	.18	.16														.04				0.76
Boulder	do			T.	.03			T.	T.			*	.03	.35						*	.51									*	.42			1.34
Burlington	Republican																																

TABLE 2.—*Daily precipitation for April, 1910. District No. 6*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Colorado—Cont'd.																																	
Cassells	South Platte			T.								*	.10		.10	.25					*	.20								*	.20		0.85
Castle Rock	do																																
Cheesman	do			T.							T.	T.	T.	T.	T.	T.						.75					T.		.25	.25	.50		1.75
Cheyenne Wells	Smoky Hill				T.						T.	.10		.68		T.						.07									.30		1.15
Como	South Platte																																
Cope	Republican																																
Corona	South Platte				.61	.26		.14				.01	.01	.10	.33	.49	.15					.30	.13								.21		2.74
Denver	do			T.							T.	T.	01	.29								.63								.38	.07		1.38
Edgewater	do													.06	.35							.55									.46		1.42
Estes P'k. Fish H'y	do			T.							.02	.02	.07	.04	.04						.05									.12	.62		0.98
Fort Collins	do							T.			T.		T.	T.	.06							T.								T.	.36		0.42
Fort Morgan	do																																
Frances	do				T.			.03				.15	.05	.03	.13							.05									.22		0.66
Fry's Ranch	do										.04		.04		.23							.02									.34		0.67
Georgetown	do			T.				T.		T.		.09	.04	.13								T.				T.				.13			0.39
Greeley	do			T.			.01				.10		T.	.34																.39	T.		0.84
Hartsel	do			T.				.01			.05		.06	.15	.13							.01				T.				T.	.07		0.48
Hawthorne	do												.16									.41									.47		1.04
Holyoke (near)	do													.20	.02																		0.22
Idaho Springs	do												.10	.20	.10							.30									.20		0.90
Kessler	do												.13	.08								.48								.30			0.99
La Porte	do														.15																.33		0.48
Le Roy (near)	do																																
Longmont	do			T.								T.									.25										.43		0.68
Long's Peak (near)	do												.50	.31																.85	T.		1.66
Moraine	do													.05																			0.05
Platte Canyon	do													.30								.73								.30	.02		1.35
St. Cloud	do			T.	T.			T.						T.	.25	T.						T.								T.	.55		0.80
Sedgwick	do													.10	.15																.23		0.48
Sill Mine	do																																
Spicer (near)	North Platte		.01	.01			.01							.02							.09										.45		0.59
Sterling	South Platte													.21	.56																.01		0.78
Waterdale	do										T.		T.		.09							.11									.59		0.79
Westlake	do																																
Wray	Republican												.14	.45	.50							.10							.02				1.21
Yuma	do													.73	.18																.25		1.16
Nebraska.																																	
Ainsworth	Niobrara				T.									T.	*	61		T.															0.61
Albion	Loup												.05		.51	T.	T.	.14	.02														0.72
Alliance	North Platte													T.	.50																.25		0.75
Alma	Republican										.02			T.	.43	.20															T.		0.65
Anoka ‖	Niobrara				.28										.52	T.		.40															1.20
Ashland	Platte										T.		T.		.03	T.	T.	.08	T.						T.						T.		0.11
Atkinson ‖	Elkhorn													.50	.50	.06	T.	T.															1.06
Auburn	Little Nemaha								.07			T.					T.	T.	.09															0.16
Beatrice	Blue																T.	.05															0.05
Beaver City	Republican													.04	.07	.08															.06		0.25
Bellevue	Missouri															.17	T.	.12							.05								0.34
Blair	do											.36				.05	T.	.14							T.								0.55
Bloomfield	do														.01	T.	T.	.20	.20														0.41
Bridgeport	North Platte				T.									.80	.30															.30	.70		2.10
Brokenbow ‖	Loup														.02	.31	.05														.05		0.43
Burge	Niobrara														.20	T.																	0.20
Callaway	Loup													.47	T.	.15																	0.62
Cambridge	Republican				T.									.09	.12	.06						T.									.34		0.31
Canton (near)	North Platte														.64															.22			0.86
Columbus ‖	Loup												.01			.13	T.	.05	.05												T.		0.24
Creighton	Missouri														.42	.06	.09	.01	.10														1.28
Crete	Blue																	.07	.08														0.15
Culberson ‖	Republican					T.						T.	.04	.18	.05															T.			0.27
Curtis	do													.16	.57	.21														T.			0.94
David City	Blue										T.	T.	T.		T.	.23	T.	.27	T.											T.			0.50
Dawson	Great Nemaha			T.				T.	T.		T	T.	.01		.07	T.	T.	T.											T.				0.08
Elsie ‖	Republican						T.					T.		.21	.34				T.												.02			0.57
Enderslake	Loup																																
Ewing ‖	Elkhorn														.37	T.	T.	T.	T.	.25														0.62
Fairbury ‖	Blue		T					T.			.08		T.	.18	.08	T.	.05	.03																0.42
Fairmount ‖	do												.06		.05	.96	T.	T.	T.															1.07
Fort Robinson ‖	Niobrara														T.	.77															T.			0.77
Franklin	Republican																																
Fremont	Platte										T.				.09			.10													.14			0.33
Fullerton	Loup												.25		.13	.04	T.	T.	T.															0.42
Geneva	Blue							T.			T.		.30	T.	.06	T.	T.	.05													T.			0.41
Genoa	Loup											.09			.05	T.	T.	.04	T.												.09			0.27
Gordon ‖	Niobrara													.16																	.35			0.51
Gosper	Republican														.23	.05						T.												0.28
Gothenburg	Platte													.35	.47	.15	T.													T.			0.97
Grand Island ‖	do														.14	.05																		0.19
Grant	Republican			T.								T.	.21	.20																.24				0.65
Greeley	Loup												.22	.55	.08	.20	.30	.10												.01				1.46
Halsey	do			T.									.03	.65	.22															T.				0.90
Hartington	Missouri				T.									T.		T.	.20	.10					T.	T.										0.30
Harvard ‖	Blue										T.	.02		.12	.02	.49	.04	.04																0.73
Hastings ‖	do											.06	T.		.28	.77	.02	.04	T.															1.17
Hayes Center	Republican																																
Hay Springs	Niobrara			.10										T.	1.05															.41				1.56
Hebron	Blue							T.			T.		T.		.24		T.	T.	T.											T.				0.24
Hemingford ‖	Niobrara				.03										.53	.02														.05				6.63
Hillside	North Platte			T.									.05	.16	.04							T.								.09				0.34
Holdredge ‖	Republican													T.	.22	.04														.03				0.29
Hooper	Elkhorn										.15	.15	.05	.07	T.		T.													.03				0.45
Imperial	Republican			T.								T.	.33		.14							T.								.24				0.71
Kearney	Platte										T.		T.	.35	.20															T.				0.55
Kimball ‖	South Platte										T.	T.	T.	.40																.50				0.90
Kirkwood	Niobrara			.05									T.		.93	.05						T.												1.03
Kowanda	North Platte												.06	.56																.12				0.74
Lexington	Platte													.09	.08																				0.17
Lincoln	do					T.					T.			T.	T.	T.	T.	.02	T.											T.				0.02
Loup	Loup												T.	.51	.47		T.																		0.98
Loyal	do												T.	.30	.20																				0.50
Mc Cook	Republican													.76																					0.76
Madison	Elkhorn										T.			T.	T.	T.	T.	.10	T.											T.				0.10
Marquette	Platte										T.	T.	T.	.02	.03		T.													.10				0.15
Mason City ‖	Loup														.52	.10																		0.62

TABLE 2.—*Daily precipitation for April, 1910. District No. 6*—Continued.

Stations	River basins	Day of month																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Nebraska—Cont'd.																																	
Minden	Blue													.20	.83	.16	.01	.03													T.		1.23
Mitchell	North Platte																																
Nebraska City	Missouri											T.					.05								.05								0.10
Norfolk	Elkhorn				T.							T.	T.	T.	.08	T.	.02	.30	T.														0.40
North Loup	Loup													T.	.43	.13	T.	T.	T.											T.			0.56
North Platte	Platte												.10	.07	.27	.02														.02			0.48
Oakdale	Elkhorn													.09	.23	.04	T.	*	.35											.01			0.72
Omaha	Missouri										T.	T.		T.	.03	T.	.05	.15							.03					T.			0.26
Ord	Loup														.31	.24																	0.55
Palisade	Republican													.67																			0.67
Pawnee City	Great Nemaha			T.									T.		T.		T.	T.															T.
Plymouth	Blue											.02					T.	T.					.02								T.		0.04
Purdum	Loup				T.									.01	.31	.10																	0.42
Ravenna	do										.84			.30	.28	.30	.04	.04	T.														1.80
Redcloud	Republican										.08		T.		.84	.01	T.	T.	T.											T.			0.93
Saint Libory	Loup													.12	.34	.04		T.												.11			0.61
Saint Paul	do													.12	.13	T.			.03														0.28
Santee	Missouri													T.	.53	.15		.40					T.										1.08
Sargent	Loup													T.	T.	.20														T.			0.20
Schuyler	Platte											T.			T.	.60	T.	T.	.10														0.70
Scottsbluff	North Platte										T.		T.	.06	.86	T.															26		1.18
Seward	Blue										T.			.30			T.	.02	T.														0.32
Sheridan	Loup				T.										.60	T.	.15	T.															0.75
Sidney	South Platte													.42	.23	.01															.05		0.71
Springview	Niobrara				T.										.25	.15	T.	T.															0.40
Stanton	Elkhorn			T.									.51		.11		.20	.10															0.92
Stratton	Republican														.42																.18		0.60
Superior	do													.22																			0.22
Tecumseh	Great Nemaha								.05						.02			T.	T.														0.07
Tekamah	Missouri											.22			.11	.05		.20													.05		0.63
Turlington	Little Nemaha							T.				.02	1.	T.	T.	T.	T.	.10	.05						T.								0.17
Valentine	Niobrara														.06	.06																	0.12
Wahoo	Platte				.10											.10		.30												T.			0.50
Wakefield	Elkhorn											.02			.08	T.	.05	.25															0.40
Walthill	Missouri												.10	T.	T.	1.10	.20	.20															1.60
Watertown	Platte															.60																	0.60
Wauneta	Republican											.05		.22	.40															.15			0.80
Weepingwater	Missouri												T.		T.		.02	.14	T.						.02								0.18
Westpoint	Elkhorn											T.			T.	.50	T.	.30															0.80
Wisner	do																																
York	Blue													T.	.02	.49	T.	.03	T.												T.		0.54
Iowa.																																	
Afton	Grand					.18						.08	.32		.02	.48	.02	.06						T.	T.	T.							1.16
Allerton	Chariton			T.	.10	.45						.88	.33		T.	.02	T.	.07	.02				T.	T.	T.	.05					.34		2.26
Alton	Floyd				T.							T.	T.		.26	.69		.30	T.														1.25
Atlantic	Nishnabotna		T.	.11											.06	.03	T.	.10						T.	T.					T.		0.30
Audubon	do																																
Bedford	Missouri			.20		.18			T.		T.	T.	.32		.02	.14	.07	.05				.02		T.	T.	T.				.01		1.01
Centerville	Chariton	T.			.60	1.24	.05					T.	.85		.07		.05	.04	.06				.30	T.							.70		3.96
Chariton	do			T.	T.	.10						.12					.10	.10						T.							T.		0.42
Clarinda	Nodaway			T.	.49	T.	.02					.02	.27			.98		.11	.05															1.94
Corning	do			T.	.15								.06		T.		T.	T.						T.									0.21
Corydon	Chariton			T.	1.50	.28						.22	.20			.04	T.	.03	.01				T.	T.		.05					.20		2.53
Creston	Missouri				.07	.07	.02					T.	.46			.12		.04							.01	T.							0.79
Cumberland	Nodaway			.11											.04			.05						T.									0.20
Denison	Missouri														T.	.05		.09						T.	.05					.02			0.21
Elliott	Nishnabotna			.16	.04												.12																0.32
Greenfield	Nodaway				1.45	.03							.25		T.	.07		.06	T.					T.	.07								1.93
Hancock	Nishnabotna																																
Harlan	do			T.	.05							T.			T.	T.	.06	.06	T.					T.	T.								0.17
Hopeville	Grand		.04	T.		.12	.34					.39	.14		T.	T.	T.	.02	T.				.05	.02	.02	T.				T.			1.14
Inwood	Big Sioux				.03								.03		.60	.31	.10	.30	.03				T.										1.40
Lamoni	Grand		T.		T.	.51						.98	.07		.01	.30	.01	.01	T.					T.	.05					.21			2.15
Larrabee	Little Sioux											.05			.15		.54	.35							.03								1.12
Le Mars	Floyd				T.							T.	.05		.20	.36	.22	.15	T.														0.98
Lenox	Missouri			.15	.10	.15						.10	.10		T.	T.	T.	.03						T.	.03					T.			0.66
Leon	Grand		.03		T.	.10						.25	.10		.15	.25		.10							.02	.03				.30			1.33
Little Sioux	Little Sioux												T.		.26	.05	T.	.19							.06					.03			0.59
Logan	Missouri														T.	.05	.20													T.			0.25
Massena	Nodaway				.30	T.							.03		.14	.41	.21	.10	T.					T.	T.								1.19
Mount Ayr	Grand		.15	.03	.15	.37						.10	.02		.07	.37	.05	.07								.02				.02			1.42
Odebolt	Missouri															T.	T.	.21												.13			0.34
Onawa	do										.01		.40		.29	.10	.10	.15							T.					.10			1.15
Pacific Junction	do		T.								T.		T.	T.	T.	T.	T.	.06	T.						.05								0.11
Rock Rapids	Big Sioux														.26	T.		.60	T.														0.86
Sheldon	Floyd				T.							.05			.25	.85	.25	.75	.30				T.	T.									2.45
Sibley	Big Sioux									..			.03			.67	.11	.20	.22				.03										1.26
Sioux Center	Floyd				T.							T.	T.		.21	.34	.10	.20															0.85
Sioux City	Missouri				T.							T.	T.		.20	.50	.04	.08	T.											T.			0.82
Thurman	do		T.					T.			T.		T.	T.	.02		.01	.08	T.						.02					T.			0.13
Washta	Little Sioux											.05			.30		.10	.05							.05								0.55
Woodburn	Chariton		T.	T.	T.	.01						.01			.31	.03	T.	.05	.05				.06	T.	.05	T.				T.			0.57
Kansas.																																	
Abilene	Smoky Hill							.14			.04			.62			T.					.14												0.94
Agricultural College	Kansas		.05					.05			T.				.28		T.	T.					.13										0.51
Alton	Solomon										T.	T.	.10	T.	.45																		0.55
Atchison	Missouri		T.	.10		.30			T.		.10	T.			.86	.05		T.					T.		T.	T.				T.			1.31
Baker	do			T.	T.	T.			.10			T.	.50	.10	.10		T.	T.	.10				.04		T.								0.94
Beloit	Solomon											.24	.03	.39								.02											0.68
Blakeman	Republican												.14	.12	.60	.15																	1.01
Blue Rapids	Blue										*	.60			.07	.02	.01	.01	T.				T.										0.70
Centralia	do							T.			T.		.08		.05	.10	.03	.02				.04			T.								0.32
Chapman	Smoky Hill		T.					T.			T.	.10			.66		T.	T.															0.76
Clay Center	Republican				.10							.10			.45		T.																0.65
Colby	do										T.	T.	.04	.15	.30	.13														T.			0.62
Concordia	do										.12			.41		T.	.02	T.	T.			.01	.03										0.59
Densmore	Solomon				T.						T.			.03	.40	.03																		0.46
Dresden	Republican											T.	T.	.05	.08	.07	.02						T.							T.			0.22
Ellsworth	Smoky Hill								.28		.35				.51								T.										1.14
Enterprise	do											.18			.75		T.						.07										1.00
Eskridge	Kansas		.09			.26					.09				.37	.05							.22		T.								1.08
Farnsworth	Smoky Hill											.02	.01	.14	.16	.04	.05																0.42
Ft. Scott	Marmaton			.12		1.16	.30		T.			.07			.12	.23	.05	.02	T.				.04	.02	T.	T.							2.13
Frankfort	Blue										T.						.05	.05												T.			0.10

TABLE 2.—*Daily precipitation for April, 1910. District No. 6*—Continued.

Stations.	River basins.	Day of month.																													Total
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Kansas—Cont'd.																																	
Garnett	Marais de Cygnes		.03	.07	T.	T.					T.				.27	T.	T.	T.					.01	T.	T.					T.		0.38
Goodland	Smoky Hill																																
Gove	Blue										.10	.02	.04	.18	.07	.05																0.46
Hanover	do										.15				T.		.05	T.														0.20
Harrison	Republican										T.			.37			.01	T.														0.38
Hays	Smoky Hill			T.							.37			.54		T.																0.91
Hill City	Solomon										.07			T.	.40	.04																0.51
Horton	Kansas			T.	T.	.08		T.	.04		.10	.10	.10		.13		T.	T.							T.						.05	0.60
Hoxie	Solomon					T.							.10	.09	.07	.03																0.29
Jewel	Republican										T.	T.	.03		.33		.03	T.														0.39
Lawrence	Kansas		.15		.04	.33		.05			.18	T.	T.	T.	.63		.02	.01					.24		.04	T.						1.69
Lebanon	Solomon										.02		T.		.64	T.																0.66
Lindsborg ‖	Smoky Hill								.18		.10			.65									.78									1.71
Mankato	Republican										T.		T.		.41		T.	T.														0.41
Minneapolis	Solomon								T.	.04					.50	T.	T.	T.					.59									1.13
Moran	Marmaton		.58	T.	.38	.15			T.		T.				.44	T.	T.	T.							T.	T.				T.		1.55
Natoma	Saline										.30			.45																		0.75
Norton	Republican													T.	.29															T.		0.29
Oberlin	do												.07	.14	.08	.19														.03		0.51
Oketo	Blue										.02	T.	T.		.03		T.	.05														0.10
Olathe	Kansas		.33	.01	.03	.77					.05	.06	T.		.11		T.	.04					.20		.05	T.				.01		1.56
Osage City	Marais de Cygnes			.35	T.	.09	.10					.15	T.		.34	.09	T.	.01	T.				.06		T.							1.19
Ottawa	do		.49	T.	T.	.37					.02				.36	T.	T.	T.					.14		T.	T.				.03		1.31
Phillipsburg	Solomon										.33			T.	.31	.08	T.	T.					T.							T.		0.72
Plainville	Saline										.06			.70																		0.76
Pleasonton	Marais de Cygnes		.70		.55	.82									.90	.02							.28			.08				T.		3.35
Republic	Republican																																
Russell	Smoky Hill										.08		.96	.65																		1.69
Saint Francis	Republican				T.						T.		T.	.27	.06	.14						.03								.03		0.53
Salina	Smoky Hill							.08			T.			T.	.65		T.	T.	T.				.60									1.33
Scott	White Woman										.04	T.	.09	.40	.12	.14							T.									0.79
Smith Center	Solomon										T.		.19	.25	.07	T.																0.51
Topeka	Kansas		.06		.10	.16		T.			.04	T.	.01		.19	.04	.03	.01	T.				.02		T.					T.		0.66
Valley Falls	do		T.	T.	T.	.18					.05			.09	.30	.03	T.	T.					.17		T.							0.82
Vinland	do		.39	.12		.20					.23		T.		.47		.05	.02					.25		.05							1.78
Wakeeney	Smoky Hill										.09			.05	.01	.06																0.23
Wallace	do										.03			.35		.10														T.		0.48
Wamego	Kansas		.05					T.			.05	T.			.15		.02	T.					T.		T.							0.27
Missouri.																																	
Amoret	Osage		.80		.60	1.30					.20	T.			.60	.55	T.	T.					.25		T.	.01				T.		4.31
Appleton City	do		.30		1.10	1.30										.72	.12	.03								T.						3.57
Arlington ‖	Gasconade			.24	T.	.46	.28					T.	.30			.20	.30	.10	.20						T.	.16	.16	.18					2.58
Arthur	Osage		.08		.81	1.02			T.		.57				.29	.10	T.	T.					T.									2.87
Avalon	Grand		.25		.45	1.46							.05		.08	.12									.15							2.56
Bagnall ‖	Osage			.20	.10	1.20	.80						.94			.48	.20	.30	.28					.20		.50	.18						5.38
Bethany	Grand											.99			T.	.32	T.	T.						T.	T.	T.				.20		1.51
Bolivar	Osage		.07	.04	1.40	.90					.07	.11	.02		.62	.07	.10	.05					.02			.12						3.59
Boonville ‖	Missouri			.42		.26	1.00			.04		T.	.40				.24	.12	.14						.18	T.	.20		.04				3.04
Brunswick	Grand			.52		.56	.86	.02					.07			.83	.02	.03	.12							T.	.29						3.32
Clinton	Osage		.60		1.12	1.63	.07				.37	.40	.03		.02	.36	.08	.01				.08								T.		4.99
Columbia	Missouri		.68	.07	1.30	.59			T.			.15	T.		.52	.02	.06	.09	.01				.10	.03	.01	.09	.10			T.		3.82
Conception	do		T.			.43		T.				.07			.58	.22	T.	.05					.04	T.	T.	T.				T.		1.39
Darksville	Chariton																																
El Dorado Springs	Osage		.20		.83	1.60					.20	.17			.09	T.		T.							T.	.34						3.43
Fairport	Grand		T.		T.	.70						.60			.65		T.	.07							T.					.10		2.12
Fayette	Missouri		.43		.35	.79						.27			.23	T.		.15					T.			.25				.08		2.57
Fulton	do		.01	.32	*	1.30		.20				.35	.07		.02	*	.47	.09	.10	.01			.11	T.	.03	.06	.23					3.37
Gallatin	Grand																																
Glasgow ‖	Missouri			1.34		.84	.88		.01	T.			.38			.62			.18	.01				.12	.01	.08	.10	T.					4.57
Grant City	Grand		T.	T.	T.	.69			.04			.26	T.		.16	.45	.05	.05	T.				T.	T.	T.							1.70
Harrisonville ‖	Osage			.24		1.45	1.40					.29	.01		.03	.47		T.	.05					.20	.02	.10	.03						4.29
Hazelhurst	Grand		.02		.57	1.55					.02	.04			.02		T.	.05	T.					T.	.02	.03				T.		2.32
Hermann ‖	Missouri			.08	.04	.24	.12						.34			.22	.76	.08	.20	.10			.12	.04	.02	.18	.02					2.56
Houston	Gasconade		.20	.20	.25	.70	T.				T.	T.			.70	.25	.42	.05	T.				T.		.14	*	.14					3.05
Huntsville	Chariton																																
Jefferson City ‖	Missouri			.07		.46	.31						.09	.01		.25	.37	.11	.17	.02				.06	.10	.05	.15	.09					3.12
Kansas City	do		.27		.16	1.06					.49	.01	.03		.01			.05					.19		.03	.05						2.35
Kidder ‖	Grand		.13			.85	.63		.02			.07						.03	.07							.03						1.83
Lamonte	Missouri		.63	.18	.58	1.72			T.			.48	T.		.79	.04	T.	.14	T.				.08		T.	.21				.08		4.93
Lebanon	Osage		.06	.15		.80								.15	.50	.51		.10							.20	.35						2.82
Lexington ‖	Missouri			.55		1.16	1.50			T.		.27	.12			.17			.06					.18		.11	.05					4.17
Liberty	do		T.	T.	.18	1.13		T.			T.	.11			T.		T.	.05					.14			T.						1.66
Lockwood	Osage			T.	.83	.73					.20	.17			.39	.04	T.	.06							T.	.04						2.46
Marshall	Missouri		1.09	.15	.45	1.55			T.			.54				.34		.30	.04							.12						4.58
Marshfield	Osage		*	.30	.37	.92					*	.05			.43		.58	.03							.10	.13						2.91
Maryville ‖	Missouri				.30	.16	.22		.07				.07	T.	.01	.44		.10							T.							1.37
Mount Vernon	Osage																																
Nevada	do		T.		1.03	2.13			T.		.15	1.06			.30	.11	T.	T.	T.				T.		T.	.17						4.95
New Palestine	Missouri																																
Oregon	Missouri			T.		.30		.03			T.	.03	T.	T.	.90	T.	.08	.08								T.				T.		1.42
Osceola ‖	Osage			.10		1.43	1.07					.17	.09		.03	.06		.03	.07							.20	.02					3.27
Pattonsburg ‖	Grand		T.			.57	.46		.01				.07		.01	1.04		.03	.04						.02	T.				T.		2.25
Rolla	Gasconade		.02	.06	.05	.40	.03					.27	.03		.04	.69	.30	.18	.64				.10	T.	.05	.02	.22					2.50
St. Charles	Missouri		T.	.30		.60	T.					.47	.03			.81	.57	.11	.18				.20	.01	.15		.16					3.59
St. Joseph	do		T.	.04		.38		.03			.34	.28	T.		.55	.02	T.	.03					.02	T.	.04	.01				.08		1.82
St. Louis	Mississippi		.25	.14	.84	.38						.10			.59	.20	.93	.08	.04				.07	.08	.11	.06	.20					4.09
Sublett	Chariton		T.		T.	2.00							.10		T.	.25	T.	T.	.10					T.	T.	.10				T.		2.55
Trenton	Grand		.07		.67	1.01					T.	.03			.11		.05	.06	T.					.04	.07							2.11
Unionville ‖	Chariton			.05		.30	.70						1.66			.04		.15	.14				T.	.12	T.	.16	T.					3.32
Warrensburg	Missouri		.74	.03	.44	2.27					.25	.33	T.		T.	.31	T.	T.								.36				.05		4.78
Warrenton ‖	do			.30		.22	.14						.23	T.		.58	.51	.22	.16	.22				.15	.12	.04	.31	.01					3.21
Warsaw	Osage		.48		.67	1.30			T.		.21	.31	T.		.08	T.	T.	.09	T.				.06		T.	.18						3.38
Wheatland	do		.25		.55	1.19				.39	.28	.03			.20	.80		.10					.05		.10	.30						4.24

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 6, Missouri Valley.*

Date.	Wyoming.																Montana.											
	Basin.		Cheyenne.		Fort Laramie.		Lander.		Newcastle.		Pathfinder.		Sheridan.		Yellowstone Park.		Billings.		Dillon.		Havre.		Helena.		Lewiston.		Malta.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	64	41	53	30	64	28	63	28	54	31	62	25	67	38	48	28	68	22	56	22	64	32	64	27	63	23	62	26
2...	66	39	60	35	79	33	57	44	65	40	60	41	64	43	46	31	68	42	52	23	60	39	54	34	56	36	59	37
3...	61	36	47	22	69	39	41	20	56	32	61	30	61	30	32	19	56	34	53	26	45	27	36	27	45	25	56	33
4...	67	24	40	21	64	31	46	12	45	24	45	22	46	25	40	13	54	22	58	25	58	27	52	31	47	30	55	26
5...	56	21	59	22	68	21	62	22	65	24	59	23	68	22	52	23	70	25	60	25	67	40	70	32	47	27	70	30
6...	60	26	65	30	79	23	64	26	70	32	61	26	71	25	51	30	72	28	62	28	64	34	56	41	61	33	72	35
7...	70	29	61	40	75	31	65	29	65	48	69	34	66	41	52	37	73	28	67	30	66	28	65	35	63	27	63	27
8...	70	36	66	36	77	30	70	32	75	44	66	31	75	31	62	35	82	42	65	28	71	38	70	40	74	35	72	39
9...	75	36	65	35	79	39	71	32	79	40	70	30	82	32	63	36	85	34	70	35	79	41	77	38	81	41	81	43
10...	78	38	66	37	76	36	68	35	82	48	71	42	69	42	60	39	78	45	72	36	67	47	66	43	73	39	80	46
11...	79	40	64	39	77	38	71	34	75	40	73	34	75	35	60	36	84	28	68	34	76	43	72	41	77	38	76	41
12...	79	44	64	32	76	33	65	37	78	36	69	36	71	36	62	34	78	44	66	30	70	44	65	42	67	35	72	44
13...	74	38	50	37	65	38	59	42	70	40	62	37	53	37	48	24	60	48	63	29	62	37	53	31	59	36	66	43
14...	60	30	38	26	35	32	35	25	50	30	54	30	39	33	34	20	50	34	58	26	51	32	44	29	45	28	60	36
15...	58	27	33	24	45	30	42	26	42	28	36	19	47	31	45	14	58	32	56	27	60	23	57	32	53	21	56	24
16...	64	30	52	25	59	23	62	24	56	30	56	20	60	25	60	23	74	26	62	30	66	29	66	46	52	28	60	23
17...	70	31	58	35	62	31	65	35	52	21	60	30	60	30	61	29	65	28	64	31	60	29	71	40	67	29	57	23
18...	76	35	59	33	64	32	70	31	60	28	67	28	69	25	67	29	80	26	67	35	80	29	80	38	80	31	74	27
19...	79	40	73	32	70	25	77	31	85	32	79	30	82	29	69	35	88	37	71	36	89	52	84	46	86	46	88	42
20...	81	50	77	42	87	30	77	41	86	47	75	45	82	41	63	36	84	38	67	37	72	43	65	45	70	43	80	52
21...	84	43	52	35	62	44	63	36	72	35	71	33	63	43	55	28	70	37	61	30	66	39	62	36	65	35	66	35
22...	68	41	56	34	64	30	65	39	61	36	64	34	62	47	60	35	62	48	68	34	67	34	68	38	69	37	63	30
23...	71	35	60	30	69	28	70	33	67	30	71	32	71	31	69	30	80	32	69	36	78	38	78	38	75	30	75	34
24...	76	40	64	34	70	24	75	33	70	32	78	34	78	30	70	35	87	32	72	37	88	40	83	42	84	37	84	46
25...	80	45	68	31	72	33	76	35	76	38	74	38	81	33	74	38	92	34	70	35	89	48	86	46	76	47	90	46
26...	84	40	71	31	80	28	79	37	82	41	78	40	80	36	74	36	90	36	66	36	94	44	84	44	86	43	92	52
27...	85	44	80	38	90	29	82	39	91	43	82	39	83	36	70	40	81	40	67	37	79	54	77	55	80	47	80	51
28...	81	45	82	49	92	44	78	50	82	40	80	41	85	45	59	34	76	51	60	34	69	52	56	42	64	44	73	51
29...	84	41	64	39	66	49	61	38	70	38	78	38	52	41	41	31	56	42	61	34	56	39	55	39	63	36	61	45
30...	64	40	53	33	68	41	56	39	55	35	68	37	53	40	49	29	62	34	68	33	55	29	55	34	56	29	59	32
31...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mns	72.1	36.8	60.0	32.9	70.1	32.4	64.5	32.8	67.9	35.4	66.6	32.6	67.2	34.4	56.3	30.2	72.8	35.0	64.0	31.3	68.9	37.7	65.7	38.4	66.1	34.5	70.1	37.3

Date.	Montana.				North Dakota.										South Dakota.											
	Miles City.		Poplar.		Berthold Agency.		Bismarck.		Dickinson.		Jamestown.		Williston.		Aberdeen.‡‡		Chamberlain.		Huron.		Kadoka.		Lemmon.		Pierre.		Rapid City.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	68	36	61	22	61	17	59	28	58	22	57	26	58	25	60	31	70	.....	58	35	60	40	57	23	59	41	56	39
2...	66	46	65	43	64	39	67	41	62	38	69	35	64	42	80	32	72	40	79	42	72	37	51	31	76	43	62	39
3...	48	32	56	35	64	40	67	41	59	38	73	40	57	33	80	45	82	39	81	50	65	37	.....	.....	73	41	60	34
4...	52	29	63	22	52	31	51	31	49	29	76	30	50	28	46	40	64	35	50	32	49	30	.....	.....	53	39	47	32
5...	70	32	68	25	68	18	67	28	65	22	64	21	67	28	65	25	72	36	60	26	61	27	66	24	63	30	62	31
6...	74	40	77	34	81	31	77	36	77	39	60	22	78	37	72	28	76	42	71	29	78	33	77	32	80	38	73	36
7...	68	41	65	32	60	37	62	41	64	35	65	25	59	32	70	35	80	30	69	40	67	46	64	42	68	46	63	48
8...	78	43	60	36	73	35	74	38	71	39	75	30	69	37	80	31	83	40	78	34	79	37	75	34	81	38	75	37
9...	85	48	87	37	84	39	82	42	83	41	70	39	84	46	85	35	86	30	84	40	82	42	83	42	85	46	77	44
10...	76	49	74	43	72	44	84	45	74	48	85	35	66	35	86	40	84	48	81	42	83	47	80	45	84	54	76	44
11...	78	44	71	33	63	25	61	31	64	28	80	32	65	30	66	40	80	42	78	41	66	40	65	32	68	42	67	43
12...	80	48	76	43	80	32	76	31	79	34	75	26	76	37	78	33	78	38	70	39	79	37	78	32	79	38	76	40
13...	74	48	61	45	74	43	82	52	72	44	75	35	55	46	76	40	76	48	73	46	74	45	79	41	76	51	70	42
14...	50	38	52	42	53	37	54	31	49	35	70	30	46	33	58	47	72	32	58	41	62	36	55	37	60	40	42	35
15...	52	32	51	28	39	27	33	24	40	27	60	10	44	27	28	28	53	28	41	26	41	32	39	28	40	30	42	35
16...	58	28	50	23	38	22	32	22	42	21	60	5	42	25	29	21	34	25	27	22	48	26	43	23	35	27	51	30
17...	55	28	51	23	45	24	38	21	43	23	32	4	48	23	29	19	34	27	28	20	51	28	42	23	40	28	49	34
18...	67	28	66	20	59	20	54	23	57	18	60	10	59	18	44	24	54	.....	38	27	56	25	57	20	54	29	57	35
19...	88	42	87	38	89	31	83	28	87	33	65	22	87	42	60	24	69	25	58	24	81	27	83	26	76	29	83	31
20...	90	48	90	42	91	39	89	47	89	41	70	34	90	42	80	31	92	37	83	35	92	51	90	39	94	43	88	55
21...	68	44	68	38	77	43	66	43	76	40	65	30	61	35	58	40	89	56	59	46	81	34	73	45	67	44	60	41
22...	64	38	67	26	55	23	46	26	53	27	57	14	49	22	42	32	57	36	46	30	55	33	51	32	49	35	55	34
23...	74	41	73	35	62	15	53	20	57	22	45	35	64	28	48	20	54	24	48	22	59	23	59	20	53	29	61	31
24...	79	42	78	40	75	28	68	23	70	32	60	20	74	39	64	25	65	27	60	25	63	27	72	21	64	29	63	33
25...	88	52	89	50	80	39	76	39	76	38	74	30	82	47	71	31	70	.....	67	29	62	30	74	30	71	31	71	33
26...	90	48	92	50	89	49	85	41	85	41	80	34	91	51	80	34	78	34	79	35	81	35	83	36	81	38	78	37
27...	88	54	88	52	90	34	90	49	88	53	90	46	88	42	90	38	90	44	87	44	92	45	90	45	92	53	89	40
28...	84	54	71	53	78	60	78	44	76	41	81	39	76	45	88	40	90	50	94	47	93	49	82	45	91	50	90	53
29...	60	48	61	45	68	.....	56	39	71	47	62	38	58	41	68	48	88	59	68	44	81	51	54	40	70	47	58	44
30...	59	44	60	42	63	28	62	30	58	32	60	26	60	35	66	33	65	41	64	38	58	40	59	30	61	41	56	37
31...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mns	70.5	41.5	69.3	36.6	68.2	32.8*	65.7	34.5	66.5	34.3	67.2	28.1	65.6	35.0	64.9	33.0	71.9	37.5*	64.6	35.0	69.0	36.3	67.2b	32.8b	68.1	39.0	65.2	38.2

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 6*—Continued.

Date.	South Dakota.				Colorado.				Nebraska.											
	Sioux Falls.		Watertown.		Yankton.		Denver.		Wray.		Alma.		Bridgeport.		Grand Island.‡‡		Hay Springs.		Hebron.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	72	33	68	35	69	33	61	35	70	34	70	29	69	33	72	38	73	38	72	40
2	68	36	67	33	63	32	62	33	64	32	64	30	67	34	68	38	68	38	68	40
3	72	34	68	35	72	34	68	34	72	33	77	31	73	35	73	38	73	38	73	40
4	68	32	67	34	67	33	67	34	68	33	68	31	68	34	68	38	68	38	68	40
5	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
6	72	34	69	35	72	34	68	34	72	34	72	33	72	34	72	38	72	38	72	40
7	68	34	67	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
8	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
9	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
10	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
11	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
12	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
13	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
14	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
15	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
16	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
17	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
18	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
19	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
20	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
21	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
22	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
23	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
24	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
25	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
26	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
27	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
28	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
29	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
30	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
31	68	34	68	34	68	34	68	34	68	34	68	33	68	34	68	38	68	38	68	40
Mean	69.0	36.3	63.0	34.8	65.1	39.5	65.6	38.8	70.5	36.5	72.9	38.6	67.5	33.8	69.4	38.3	66.3	33.3	69.0	40.8

Date.	Kansas.								Missouri.							
	Valentine, Nebr.		Clarinda.‡‡		Sibley.‡‡		Sioux City.		Colby.		Concordia.		Salina.		Topeka.		Wakeeney.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	63	35	72	35	62	33	64	41	71	35	75	36	75	36	75	36	73	36
2	72	36	76	41	76	36	72	43	82	37	77	36	77	36	77	36	76	36
3	75	43	79	41	82	41	75	46	84	46	80	36	80	36	80	36	80	36
4	76	46	84	46	84	46	78	46	86	46	84	36	84	36	84	36	84	36
5	78	46	86	46	86	46	80	46	88	46	86	36	86	36	86	36	86	36
6	80	46	88	46	88	46	82	46	90	46	88	36	88	36	88	36	88	36
7	82	46	90	46	90	46	84	46	92	46	90	36	90	36	90	36	90	36
8	84	46	92	46	92	46	86	46	94	46	92	36	92	36	92	36	92	36
9	86	46	94	46	94	46	88	46	96	46	94	36	94	36	94	36	94	36
10	88	46	96	46	96	46	90	46	98	46	96	36	96	36	96	36	96	36
11	90	46	98	46	98	46	92	46	100	46	98	36	98	36	98	36	98	36
12	92	46	100	46	100	46	94	46	102	46	100	36	100	36	100	36	100	36
13	94	46	102	46	102	46	96	46	104	46	102	36	102	36	102	36	102	36
14	96	46	104	46	104	46	98	46	106	46	104	36	104	36	104	36	104	36
15	98	46	106	46	106	46	100	46	108	46	106	36	106	36	106	36	106	36
16	100	46	108	46	108	46	102	46	110	46	108	36	108	36	108	36	108	36
17	102	46	110	46	110	46	104	46	112	46	110	36	110	36	110	36	110	36
18	104	46	112	46	112	46	106	46	114	46	112	36	112	36	112	36	112	36
19	106	46	114	46	114	46	108	46	116	46	114	36	114	36	114	36	114	36
20	108	46	116	46	116	46	110	46	118	46	116	36	116	36	116	36	116	36
21	110	46	118	46	118	46	112	46	120	46	118	36	118	36	118	36	118	36
22	112	46	120	46	120	46	114	46	122	46	120	36	120	36	120	36	120	36
23	114	46	122	46	122	46	116	46	124	46	122	36	122	36	122	36	122	36
24	116	46	124	46	124	46	118	46	126	46	124	36	124	36	124	36	124	36
25	118	46	126	46	126	46	120	46	128	46	126	36	126	36	126	36	126	36
26	120	46	128	46	128	46	122	46	130	46	128	36	128	36	128	36	128	36
27	122	46	130	46	130	46	124	46	132	46	130	36	130	36	130	36	130	36
28	124	46	132	46	132	46	126	46	134	46	132	36	132	36	132	36	132	36
29	126	46	134	46	134	46	128	46	136	46	134	36	134	36	134	36	134	36
30	128	46	136	46	136	46	130	46	138	46	136	36	136	36	136	36	136	36
Means	65.6	36.4	66.4	38.1	64.6	33.5	65.3	40.5	71.6	35.7	69.8	43.6	68.6	45.1	72.4	44.6	73.5	40.7

Date.	Missouri.															
	Columbia.		Kansas City.		St. Louis.		Unionville.‡‡									
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.								
1	64	44	65	46	65	46	68	46								
2	64	44	65	46	65	46	68	46								
3	64	44	65	46	65	46	68	46								
4	64	44	65	46	65	46	68	46								
5	64	44	65	46	65	46	68	46								
6	64	44	65	46	65	46	68	46								
7	64	44	65	46	65	46	68	46								
8	64	44	65	46	65	46	68	46								
9	64	44	65	46	65	46	68	46								
10	64	44	65	46	65	46	68	46								
11	64	44	65	46	65	46	68	46								
12	64	44	65	46	65	46	68	46								
13	64	44	65	46	65	46	68	46								
14	64	44	65	46	65	46	68	46								
15	64	44	65	46	65	46	68	46								
16	64	44	65	46	65	46	68	46								
17	64	44	65	46	65	46	68	46								
18	64	44	65	46	65	46	68	46								
19	64	44	65	46	65	46	68	46								
20	64	44	65	46	65	46	68	46								
21	64	44	65	46	65	46	68	46								
22	64	44	65	46	65	46	68	46								
23	64	44	65	46	65	46	68	46								
24	64	44	65	46	65	46	68	46								
25	64	44	65	46	65	46	68	46								
26	64	44	65	46	65	46	68	46								
27	64	44	65	46	65	46	68	46								
28	64	44	65	46	65	46	68	46								
29	64	44	65	46	65	46	68	46								
30	64	44	65	46	65	46	68	46								
31	64	44	65	46	65	46	68	46								
Means	65.6	36.4	66.4	38.1	64.6	33.5	65.3	40.5	71.6	35.7	69.8	43.6	68.6	45.1	72.4	44.6	73.5	40.7

Climatological Data for April, 1910.
DISTRICT No. 7, LOWER MISSISSIPPI VALLEY.

ISAAC M. CLINE, District Editor.

GENERAL SUMMARY.

Temperature conditions were generally mild during the first 12 days of the month, except that in the Colorado and New Mexico areas the weather from the 4th to 6th was cold for the season. From the 13th to the 16th in the western, and from the 15th to 19th in the eastern portion of the district, an exceptionally severe cool wave prevailed and killing frosts were reported from many localities southward into Louisiana and Texas. The last decade of the month was warm generally, and maximum temperatures reached, or exceeded, 90° in many localities. The 28th and 29th were the warmest days over the greater portion of the district, except in Louisiana where the warmest period occurred near the opening of the second decade.

Precipitation was largely in the form of snow in the mountainous portions of the Colorado and New Mexico areas and rain elsewhere. Periods of precipitation were not well defined, but, generally speaking, there were three; the first period was on the 1st to 5th in the eastern and 3d and 4th in the western portion of the district; the second period was from the 9th to 15th; and the third was from the 21st to 26th, except in the Colorado and New Mexico areas, where the precipitation of this period occurred on the 21st. Taken as a whole the precipitation was well distributed, and sufficient for agricultural needs, except in the southern portions of the district where rain was badly needed in many localities at the close of the month.

TEMPERATURE.

West of the ninety-fifth meridian, the monthly mean temperature was above the normal, and to the eastward of that meridian it was generally below. The greatest excess, more the 3°, occurred in the northeastern portion of the Kansas area and in the Texas Panhandle. Over those portions of the district where the temperature was below the normal the deficiency did not exceed 3° and ranged generally from 0.6° to 2.7°. The maximum temperature reached, or exceeded, 90° at some stations in all parts of the district, and the highest recorded was 100°, at Hugoton, Kans., on the 28th, and at Mutual, Okla., on the 29th. Except in Louisiana, the lowest temperatures in the several States or areas were generally below 32°, and in the mountainous portions of the Colorado and New Mexico areas were generally below 20°. The lowest temperature recorded was zero, at Lake Moraine, Colo., and a temperature of 1° was recorded at Fort Union, N. Mex.

Monthly mean temperatures and departures from the normal, for the various States and parts of States, are reported as follows: Colorado area, 48.3°, +2.5°; New Mexico area, 52.8°, +1.3°; Texas area, 60.0°, +0.8°; Kansas area, 57.9°, +1.9°, Oklahoma, 61.2°, +1.2°; Missouri area, 55.9°, −0.3°; Tennessee area, 58.6°, −1.5°; Arkansas, 59.8°, −1.4°; Mississippi area, 62.4°, −1.6°; Louisiana, 65.9°, −1.0°.

PRECIPITATION BY DRAINAGE AREAS.

Arkansas River and tributaries.—Over the headwaters of the Arkansas, in Colorado, the precipitation was unevenly distributed, there being a marked excess in some localities and a considerable deficiency in others; the amounts from 35 stations averaged 1.79 inch, being about the normal amount. The precipitation was more uniform, but generally light over those stretches of the Arkansas proper that lie in Kansas and Oklahoma, except that heavy precipitation occurred in some parts of Oklahoma. The amounts from 41 stations averaged 1.94 inch, being 1.07 inch below the normal. The precipitation was generally light over the Cimarron Valley; the amounts from 21 stations averaged 1.53 inch, being about 1.0 inch below the normal. The precipitation was below the normal over the stretches of the Canadian that lie in New Mexico, except at a few widely scattered stations; the amounts from 42 stations averaged 1.04 inch, and the average deficiency was 0.4 inch; the precipitation was unevenly distributed over that portion of the basin that lies in Oklahoma, but the amounts from 22 stations averaged 2.77 inches, which is about the normal amount. The precipitation was generally light throughout the Verdigris and Neosho valleys; the amounts from 26 stations averaged 2.11 inches and the average deficiency was about 1 inch. The precipitation over that portion of the Arkansas Basin below the Oklahoma-Arkansas line ranged generally between 3 and 8 inches; the amounts from 16 stations averaged 4.76 inches, being about 0.5 inch above the normal.

Red River and tributaries.—Less than the normal amount of precipitation occurred over this basin, except in widely scattered localities. Over the stretches of this valley that lie in New Mexico, Texas, and Oklahoma, the amounts from 45 stations averaged 2.06 inches, and the deficiency averaged about 0.9 inch. Over those portions that lie in Arkansas and Louisiana, the precipitation was heavier, and the amounts from 18 stations averaged 3.91 inches, being about 1 inch below the normal. There was an excess at most stations in Arkansas and a general deficiency at stations in Louisiana.

Mississippi south of St. Louis and small tributaries.—Except in Missouri and below the thirty-third parallel of latitude, the precipitation was generally above the normal over this drainage area. The heaviest precipitation occurred in eastern Arkansas. In the immediate Mississippi Valley, the amounts from 47 stations averaged 5.00 inches, being about 0.3 inch above the normal. There was a deficiency of about 1.5 inch over the Valley of the Meramec. Heavy precipitation occurred in portions of the White River Basin, and only a few stations reported a deficiency and they were mostly near the headwaters; the amounts from 21 stations averaged 4.60 inches and the excess averaged 0.6 inch. More than the normal amount of precipitation occurred over the upper and less than the normal over the lower portions of the Yazoo Basin; the amounts from 28 stations averaged 4.95 inches, being about 0.2 inch below the normal. The average precipitation over the Valley of the Big Black was 3.80 inches and the average deficiency was 0.3 inch. Heavy precipitation occurred in the Ouachita Basin, except in Louisiana where there was very little in some localities; the amounts from 17 stations averaged 4.41 inches, being about 0.4 inch below the normal.

Louisiana coastal plain.—Very little precipitation occurred in this area; the amounts being less than 1 inch at many stations, and only 4 stations reported more than 2 inches. The precipitation from 25 stations averaged 1.30 inch, being about 3.0 inches below the normal.

Monthly precipitation and departures from the normal for the various States and parts of States are reported as follows: Colorado area, 1.78, −0.04; New Mexico area, 1.03, −0.38; Texas area, 1.48, −1.07; Kansas area, 1.52, −1.05; Oklahoma, 2.57, −0.53; Missouri area, 4.09, −0.22; Tennessee area, 6.16, +1.18; Arkansas, 5.14, +0.82; Mississippi area, 4.71, −0.34; Louisiana, 2.05, −2.60.

SNOWFALL.

Moderately heavy snow fell in the mountainous portions of the Colorado and New Mexico areas, and light snowfall was general over the Missouri, Tennessee, and northern portion of the Mississippi areas, and in northern Arkansas. Some snow was reported from the Texas Panhandle and southern Arkansas. Alternate thawing and freezing temperatures in the mountains were very favorable for the keeping of the snow in drifts,

and the prospects at the close of the month were good for a late flow of irrigation water. The average snowfall (in inches) for the various States and parts of States during the month, derived from the records of such stations as reported snow, is as follows: Colorado area, 14.1; New Mexico area, 3.3; Texas area, trace; Kansas area, trace; Oklahoma, trace; Missouri area, 0.4; Kentucky area (2 stations), 6.8; Tennessee area, 1.2; Arkansas, trace; Mississippi area, 0.4.

RIVERS.

In Oklahoma, all streams were generally below the normal April stage, except that there were irregular rises as a result of heavy local rains.

Changes in the stages of the upper portions of the Red River were slight, but below Arthur City there was a rise of 12 to 14 feet, the crest passing Fulton on the 20th, Shreveport on the 21st, and Alexandria on the 23d.

Changes in the stages of the Arkansas were generally slight. At Great Bend, Kans., there was no water in the river during the month. In Arkansas there was a slow rise until the 18th, when a stage of 12.9 feet was recorded at Little Rock. River traffic which had been suspended in March, on account of the low water, was resumed during the latter part of the first decade and continued without interruption until near the close of the month.

There was a sharp rise in the Ouachita, at Camden, Ark., from 8.3 feet on the 1st to 32.4 feet on the 18th, but this rise flattened out before reaching Monroe and the changes below Monroe were slight.

Below St. Louis, a crest of comparatively high water passed Memphis on the 23d, with a stage of 22.1 feet; Helena, on the 24th, with a stage of 28 feet; Arkansas City, on the 26th, with a stage of 30.9 feet; Natchez, on the 29th, with a stage of 31.6 feet. Below Natchez the rises were slight.

NOTES.

New Mexico (northeastern portion).—Severe and damaging frosts occurred generally on the 4th and 5th, those of the latter date proving especially damaging because of the advanced stage of fruit trees, early gardens, and alfalfa.

Texas (Red River Valley)—There was no precipitation after the 16th, and as the moisture deposited previous to that date evaporated rapidly, the need of additional moisture was felt in many parts of the State before the close of the month.

Bonham.—Frost on the 19th killed all corn on low lands, and the freeze on the 25th killed crops on uplands in many places.

Winfield.—The frost on the 25th damaged young cotton and gardens to some extent, but fruit was uninjured.

Romero.—Hail fell in this vicinity on the 12th, covering a circular area about 10 miles in diameter. In some places the depth of the hail was 4 inches on level ground and the stones were about three-quarters inch in diameter. The wind and hail made a roaring noise that could be heard for several miles.

Arthur City.—The weather has been dry, windy, and generally unfavorable for growing crops. Light frosts damaged crops slightly on very low land. Small grain has suffered greatly for want of rain. Where the ground has not been well cultivated, corn is dying. Grass has stopped growing and pastures are getting short. Insufficient water for stock is causing great inconvenience.

Tulia.—Many thanks for frost warnings sent out by the Weather Bureau; they were the means of saving fully one-half, if not more, of our fruit crop. We did not have smudge pots, but used wood from the canyon and other material and kept a good smoke in the orchards from 10 p. m. until daylight.

Kansas.—A tornado occurred on the 14th about 3:40 p. m., some 3 miles south of Parsons. The path of the tornado was about 1 mile in length and 200 feet in width. The tornado crossed Bachelor Creek and carried the water up into the air leaving the bed of the creek dry. Telephone poles were blown down and trees were uprooted. No lives were lost. There was a well-defined funnel-shaped cloud.

Weather conditions were favorable over southern Kansas for farming operations, except that low temperatures after the 15th were somewhat severe on fruit and checked the advance of vegetation generally.

Missouri.—The weather of the first half of the month was favorable for outdoor occupations, but unfavorable conditions prevailed during the latter half. Fruit in the Ozark Hills suffered serious injury, but the damage was less in the lower tier of counties. Some corn was killed, but the wheat, oats, and grass were not damaged.

Tennessee.—The nights of the 24th and 25th were extremely cold for the season and the temperature fell to the freezing point, but the weather being mostly cloudy not much frost formed.

Mississippi.—Fruit and growing crops suffered much injury from the frost of the 25th.

Oklahoma.—Heavy to killing frosts were general over the State on the 25th and 26th, and freezing temperatures occurred in some localities; much damage resulted in the eastern portion of the State, especially on bottom land; but in the western portion of the State, the injury was slight.

TABLE 1.—*Climatological data for April, 1910. District No. 7, Lower Mississippi Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Colorado.																				
Blaine	Baca	3,935	18	52.6	.....	92	28	20	4	45	.....	.....	.....	.....	...	14	12	4	nw.	M. M. Myers.
Buena Vista	Chaffee	7,955	10	43.6	.....	75	28	18	3†	50	0.07	.....	0.04	0.0	4	24	2	4	nw.	C. A. Short.
Calhan	El Paso	6,700	3	46.4	.....	80	28	15	4	34	1.82	.....	1.10	4.5	7	18	8	4	n.	H. B. Rice.
Canon City	Fremont	5,329	22	55.4	+ 3.9	87	28	28	4	37	T.	− 1.64	T.	T.	0	19	8	3	se.	Thos. J. Tynan.
Colorado Springs	El Paso	6,098	30	48.5	+ 3.7	81	28	20	5	42	1.66	+ 0.11	0.55	4.0	7	15	10	5	n.	Colorado College.
Cripple Creek	Teller	9,396	9	.....	.....	.....	.....	.....	.....	.....	0.41	.....	0.37	8.0	3	.....	.....	.....	.....	F. G. Willis.
Cuchara Camps	Huerfano	8,200	...	.....	.....	.....	.....	.....	.....	.....	2.25	.....	1.24	14.7	5	21	7	2	sw.	Geo. A.Mayes.
Eads	Kiowa	4,209	3	47.0	.....	92	28	25	19	56	2.21	.....	2.00	0.0	2	.....	.....	.....	nw.	W. H. Lauck.
Fairview	Custer	9,500	1	.....	.....	.....	.....	.....	.....	.....	3.98	.....	2.04	48.3	6	10	18	2	ne.	Elizabeth L. Gray.
Florence	Fremont	5,185	1	55.2	.....	90	28	25	5	43	1.10	.....	0.85	0.0	3	20	1	9	e.	W. G. Fish.
Garfield	Chaffee	9,510	...	.....	.....	.....	.....	.....	.....	.....	1.59	.....	0.75	10.5	7	22	5	3	.....	Lloyd N. Felton.
Glen Eyrie	El Paso	6,500	18	46.6	+ 1.6	84	28	14	5	49	1.78	+ 0.03	0.57	0.0	7	16	14	0	sw.	C. Nickell.
Hamps	Elbert	5,400	17	45.8	+ 0.7	86	28	17	5	52	1.25	− 0.92	0.98	1.0	3	18	7	5	n.	W. Hamp.
Hermit Lake	Custer	10,000	...	.....	.....	.....	.....	.....	.....	.....	2.73	.....	1.10	34.0	8	9	9	12	sw.	Jonh E. Graham.
Hoehne (near)	Las Animas	5,700	18	51.6	+ 3.2	90	30	20	5	59	3.17	+ 1.54	1.75	6.0	5	21	4	5	w.	S. W. DeBusk.
Holly	Prowers	3,380	15	55.5	+ 2.5	93	28	20	1	53	1.19	− 0.64	0.95	0.0	4	17	12	1	nw.	R. I. Arneson.
Lake Moraine	El Paso	10,265	16	34.1	+ 1.7	62	28	0	15	35	3.25	− 0.15	0.75	42.0	9	9	13	8	nw.	Clyde C. Mc Reynolds.
Lamar	Prowers	3,592	20	56.2	+ 2.7	95	28	22	1	52	1.31	− 0.69	1.10	0.0	3	21	8	1	w.	J. T. Lawless.
Las Animas	Bent	3,899	42	55.0	+ 3.5	94	28	21	1	51	1.49	+ 0.14	0.74	0.0	5	13	8	9	n.	F. M. Tague.
La Veta Pass	Costilla	9,000	...	.....	.....	.....	.....	.....	.....	.....	3.70	.....	1.45	28.3	3	7	18	5	w.	Norman R. Lively.
Leadville	Lake	10,248	14	34.8	.....	62	27	7	4	35	0.64	.....	0.23	8.4	10	.....	.....	.....	n.	U. S. Weather Bureau.
Limon (near)	Elbert	5,360	3	46.6	.....	84	28	18	14	43	1.70	.....	1.43	1.0	5	22	3	5	nw.	John Lesher.
Marshall Pass	Saguache	10,846	7	.....	.....	.....	.....	.....	.....	.....	0.80	.....	0.28	18.0	4	20	7	3	w.	W. D.Lillard.
North Lake	Las Animas	8,700	...	.....	.....	.....	.....	.....	.....	.....	2.25	.....	1.05	20.5	6	19	5	6	nw.	James W. Ingmire.
Pueblo	Pueblo	4,734	22	53.3	+ 2.8	88	28	22	5	42	1.42	− 0.01	1.06	T.	6	16	9	5	nw.	U. S. Weather Bureau.
Rockyford (near)	Otero	4,177	21	54.0	+ 2.3	91	28	22	5	50	2.40	+ 0.78	1.75	0.0	4	26	3	1	n.	P. K. Blinn.
St. Elmo	Chaffee	9,500	...	.....	.....	.....	.....	.....	.....	.....	0.78	.....	0.42	8.9	5	17	9	4	sw.	Daniel Clark.
Salida	...do	7,035	12	45.6	+ 1.7	77	28	16	5	46	1.48	− 0.40	0.65	1.0	4	21	6	3	w.	M. D. L. Buell.
Santa Clara	Huerfano	8,250	15	44.2	+ 1.7	77	28	7	16	41	3.71	+ 0.26	1.58	20.5	8	11	18	1	.....	Lincoln Morris.
Sheridan Lake	Kiowa	4,065	9	52.8[a]	.....	86[a]	27	18[a]	5	52[a]	0.99	.....	0.98	0.0	2	28	0	2	n.	Howard Gamble.
Stonewall	Las Animas	8 000	4	.....	.....	.....	.....	.....	.....	.....	2.13	.....	0.89	20.0	7	10	16	4	.....	J. W. Shouse.
Trinidad	...do	5,994	14	.....	.....	.....	.....	.....	.....	.....	3.84	+ 2.05	3.00	9.2	4	23	3	4	.....	Mrs. Maggie Butler.
Victor (near)	Teller	10,100	6	42.1	.....	72	28	11	15†	37	2.11	.....	0.56	13.8	8	20	8	2	e.	Fred Jones.
Vilas	Baca	3,935	19	.....	.....	.....	.....	.....	.....	.....	1.32	− 0.59	1.00	T.	3	20	6	4	nw.	Carrie Konkel.
Westcliffe	Custer	7,864	16	43.2	+ 2.4	75	28	12	5	43	1.35	− 0.55	0.73	0.5	5	8	10	12	sw.	Zack Jordan.
Winfield	Chaffee	9,765	...	.....	.....	.....	.....	.....	.....	.....	0.24	.....	0.10	0.9	5	3	21	6	w.	John G. Payne.
Wortman	Lake	11,250	9	.....	.....	.....	.....	.....	.....	.....	1.78	.....	0.30	30.0	9	.....	.....	.....	nw.	Geo. C. Wortman.
New Mexico.																				
Abbott	Mora	5,771	...	57.2	.....	84	26	20	4	52	0.70	.....	0.40	T.	4	14	10	6	w.	El Paso & Southwest. R. R.
Albert	Union	4,700	19	58.6	+ 2.7	92	28	29	5	45	0.23	− 0.94	0.15	T.	3	17	11	2	e.	Andrew Knell.
Arch (near)	Roosevelt	4,634	1	51.2[c]	.....	82[c]	26	20[c]	6	46[c]	1.64	.....	0.76	0.0	3	24	1	5	sw.	Wm. A. Elliott.
Aurora	Colfax	8,849	...	.....	.....	.....	.....	.....	.....	.....	1.77	.....	0.75	7.0	9	3	25	2	nw.	Miss Juanita Lucero.
Bell Ranch	San Miguel	4,500	11	58.1	.....	94	28	24	5	50	0.13	− 1.38	0.11	0.2	2	17	9	4	se.	C. M. O'Donel.
Black Lake	Colfax	8,348	...	.....	.....	.....	.....	.....	.....	.....	0.89	.....	0.28	4.5	6	8	16	6	w.	Ralph T. Martinez.
Cabeza	San Miguel	5,406	...	.....	.....	.....	.....	.....	.....	.....	0.12	.....	0.07	T.	2	9	18	3	se.	El Paso & Southwest. R. R.
Campana	...do	4,493	...	.....	.....	.....	.....	.....	.....	.....	0.04	.....	0.04	0.0	1	5	22	3	w.	Do.
Chacon	Mora	9,000	...	.....	.....	.....	.....	.....	.....	.....	2.70	.....	1.05	13.5	9	10	12	8	sw.	Alfredo Lucero.
Cimarron (near)	Colfax	6,385	6	49.7	.....	81	28	16	16	49	1.54	.....	0.85	1.2	8	11	11	8	e.	Wm. French.
Clayton	Union	5,178	5	53.6	.....	89	28	24	3	50	0.92	.....	0.46	T.	5	.....	.....	.....	.....	Dr. W. W. Chilton.
Clovis	Curry	.....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	A. Mendenhall.
Cuervo	Guadalupe	4,849	...	60.1	.....	93	28	30	4	40	0.86	.....	0.69	0.5	4	15	14	1	w.	El Paso & Southwest. R. R.
Dawson	Colfax	6,396	...	.....	.....	.....	.....	.....	.....	.....	1.70	.....	1.40	3.0	2	19	6	5	.....	Do.
Dorsey (near)	...do	6,000	8	49.8	.....	82	29	16	16	46	0.53	.....	0.28	2.0	5	13	14	3	sw.	Geo. T. Lambert.
Elizabethtown	...do	8,465	4	39.7	.....	71	28	11	16	46	1.59	.....	1.02	3.0	5	13	11	6	w.	Miss Mabel Carrington.
Folsom	Union	6,399	10	.....	.....	.....	.....	.....	.....	.....	1.60	− 1.20	0.71	11.9	6	17	12	1	nw.	David Rope.
Fort Union	Mora	6,835	50	46.4	− 1.3	79	28	1	16	52	1.66	+ 0.77	1.00	3.0	3	18	4	8	.....	M. C. Needham.
Hayden	Union	4,444	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	Geo. L. Cook.
Johnsons Park	Colfax	6,722	...	.....	.....	.....	.....	.....	.....	.....	0.54	.....	0.25	3.5	5	21	5	4	sw.	A. J. Meloche, jr.
Lake Alice	...do	7,160	1	.....	.....	.....	.....	.....	.....	.....	2.55	.....	1.73	8.0	5	.....	.....	.....	.....	Raton Water Co.
Logan	Quay	3,851	4	60.0	.....	95	28	21	5	56	0.24	.....	0.15	0.0	2	20	8	2	sw.	John B. Reneau.
Los Alamos	San Miguel	6,789	5	.....	.....	.....	.....	.....	.....	.....	1.39	.....	0.75	T.	4	16	8	6	w.	Wm. Frank, sr.
Lykins (near)	Roosevelt	.....	...	.....	.....	.....	.....	.....	.....	.....	0.46	.....	0.44	T.	2	19	10	1	sw.	J. G. Buchanan.
Maxwell (near)	Colfax	5,894	3	.....	.....	.....	.....	.....	.....	.....	0.63	.....	0.44	1.5	6	.....	.....	.....	.....	D. N. Jackson.
Melrose	Curry	4,400	2	57.2	.....	91	28†	27	5	46	1.12	.....	1.00	0.0	2	25	1	4	sw.	Miss Lois E. Porter.
Miami Ranch	Colfax	6,000	2	49.3[b]	.....	81[b]	28	13[b]	16	46[b]	1.64	.....	1.08	3.5	5	12	13	5	w.	Farmers' Devel. Co.
Montoya	Quay	4,335	...	.....	.....	.....	.....	.....	.....	.....	1.26	.....	0.97	2.0	3	7	22	1	w.	El Paso & Southwest R. R.
Nara Visa	...do	4,225	4	57.2	.....	93	28	26	5	46	0.43	.....	0.14	T.	4	14	13	3	n.	Willard Belknap.
Pasamonte	Union	.....	...	.....	.....	.....	.....	.....	.....	.....	0.71	.....	0.71	0.0	1	14	10	6	w.	J. J. Heringa.
Raton	Colfax	6,660	12	50.1	+ 1.5	84	28	19	5	44	2.38	+ 1.23	1.35	8.3	8	17	10	3	sw.	Prof. R. C. Crum.
Rociada	San Miguel	8,200	6	44.4	.....	75	28	2	16	49	2.33	.....	1.17	17.0	6	17	11	2	w.	Chas. F. Rudolph.
Roy	Mora	5,884	...	.....	.....	.....	.....	.....	.....	.....	0.71	.....	0.63	T.	3	3	20	7	sw	El Paso & Southwest R. R.
San Jon	Quay	4,200	3	59.4	.....	93	28†	26	5	43	0.46	.....	0.26	1.0	3	20	5	5	sw.	Jesse T. White.
Solano(1)	Mora	5,622	1	53.0	.....	88	28	21	5	41	0.68	.....	0.43	2.0	4	17	10	3	sw.	F. M. Hughes.
Springer	Colfax	5,857	14	52.0	+ 2.4	87	28	9	15	55	0.22	− 0.78	0.10	0.2	3	22	4	4	w.	Atch.,Top. & S. Fe
Taylor	...do	5,661	...	.....	.....	.....	.....	.....	.....	.....	0.41	.....	0.20	1.2	4	8	15	7	w.	Do.
Trementina	San Miguel	5,000	2	.....	.....	.....	.....	.....	.....	.....	0.83	.....	0.75	1.0	3	13	16	1	sw.	Miss Alice Blake.
Tucumcari(1)	Quay	4,194	5	60.8	.....	95	28	26	5	43	0.76	.....	0.50	3.0	3	17	12	1	sw.	John F. Seaman.
Valley	Union	5,000	5	.....	.....	.....	.....	.....	.....	.....	0.24	.....	0.24	3.0	2	20	9	1	s.	Mrs. M. Letitia Payne.
Vermejo Park	Colfax	7,600	6	46.2	.....	82	28	15	5	41	1.41	.....	0.55	7.5	6	16	5	9	w.	H. W. Adams.
Wagon Mound (near)	Mora	6,300	1	48.2	.....	84	28	9	16	50	1.14	.....	0.71	1.0	4	11	13	6	w.	Guy L. Barnes
Texas.																				
Amarillo	Potter	3,676	18	58.5	+ 3.9	94	29	30	5	43	0.59	− 1.13	0.26	1.1	4	22	5	3	nw.	U. S. Weather Bureau.
Arthur City	Lamar	590	18	.....	.....	.....	.....	.....	.....	.....	3.00	− 0.61	0.90	0.0	6	17	4	9	.....	J. B. Wheeler.
Bonham	Fannin	566	7	63.4	.....	89	28†	32	25	51	2.09	.....	1.10	0.0	6	13	7	10	s.	B. S. Lovelace.
Canadian	Hemphill	2,339	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	Canadian Academy.
Channing	Hartley	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	C. F. Land & Inv. Co.
Childress	Childress	1,869	17	.....	.....	.....	.....	.....	.....	.....	1.11	− 1.44	0.61	0.0	3	17	5	8	nw.	W. E. Davis.
Chillicothe	Hardeman	1,406	2	.....	.....	.....	.....	.....	.....	.....	1.62	.....	1.03	0.0	4	.....	.....	.....	.....	A. B. Connor.
Clarendon	Donley	2,719	5	61.7[a]	.....	94[a]	28	33[a]	5†	46[a]	1.50	.....	0.90	0.0	3	14[a]	12[a]	3[a]	sw.	J. B. McClelland.
Clarksville	Red River	442	5	64.3	.....	90	28†	34	25	52	2.64	.....	1.02	0.0	5	17	8	5	.....	J. W. O'Neill.
Claude	Armstrong	3,397	5	.....	.....	.....	.....	.....	.....	.....	1.34	.....	0.82	0.0	2	.....	.....	.....	.....	Ft. Worth & Denver Cy. Ry.
Dalhart	Dallam	3,998	5	54.5	.....	92	28	23	5	47	1.51	.....	1.04	0.0	5	20	4	6	nw.	F. L. Kennard.
Denison	Grayson	.....	2	.....	.....	.....	.....	.....	.....	.....	3.24	.....	2.04	0.0	7	19	2	9	s.	J. B. Gibson.
Finley	Bowie	.....	...	.....	.....	.....	.....	.....	.....	.....	1.60	.....	0.94	0.0	3	.....	.....	.....	s.	Mrs. M. C. Myers.
Henrietta	Clay	915	15	63.4	+ 0.1	93	21†	33	25	59	1.05	− 1.54	0.64	0.0	3	24	1	5	s.	C. K. Brown.
Hereford	Deaf Smith	3,750	5	56.8	.....	92	28	21	5	56	1.15	.....	0.55	T.	3	13	9	8	.....	A. C. Elliott.
Lewis Ferry	Bowie	.....	1	.....	.....	.....	.....	.....	.....	.....	3.38	.....	2.00	0.0	5	.....	.....	.....	.....	P. G. Ruff.

TABLE 1.—*Climatological data for April, 1910. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.					Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Texas—Cont'd.																				
Memphis	Hall	2,067	5			96	29	34[1]	17	41[1]	1.23		6.45	0.0	5	17	8	5		Ft. Worth & Denver Cy. Ry.
Miami	Roberts	2,743	4	61.0		95	28†	32	5	47	1.86		1.03	0.0	3	20	10	0	n.	J. E. Kinney.
Mobeetie	Wheeler		1								0.46		0.20	0.0	4	24	2	4	n.	R. A. Choate.
Nazareth	Castro		4	56.2		93	29	24	5	51	1.62		0.86	T.	3	25	2	3	sw.	Rev. P. A. Kaelin.
Ochiltree	Ochiltree		2								0.85		0.55	0.0	2					S. J. Allen.
Pampa	Gray	3 226	1	62.0		97	19	27	4	64	1.50		1.15	0.0	4					B. E. Finley.
Paris	Lamar	592	21	62.3	− 1.8	89	28	33	25	46	2.86	− 1.57	1.00	0.0	9	14	1	15	s.	Robert A. Miller.
Plemons	Hutchinson		3																	C. S. Solomon.
Quanah	Hardeman	1,563	5	64.0		94	29	36	25	41	1.17		1.05	0.0	2	22	3	5	s.	Wm. H. Crawford.
Ringo Crossing	Hopkins										3.54		1.30	0.0	4	15	0	15	nw.	H. J. Palmer.
Romero	Hartley			57.2		92	29	27	5	50	0.73		0.34	1.5	5	15	6	9	n.	R. S. Chamberlain.
Sherman	Grayson	745	17	65.0	+ 0.9	84	17†	37	25	38	3.38	− 0.01	0.95	0.0	8	17	10	3	s.	R. A. Gibbs.
Sulphur Springs	Hopkins	530	18	63.2[d]		89[e]	29	34[d]	25	43[e]	3.56	+ 0.23	1.66	0.0	4					O. M. Pate.
Texline	Dallam	4,694	5					25	5		1.75		1.05	1.0	4	24	0	6	sw.	Ft. Worth & Denver Cy. Ry.
Tulia	Swisher	3,501	12	58.6		98	29	25	5	49	1.91	− 1.16	1.16	T.	5	11	17	2	n.	Lou Mulhall.
Wichita Falls	Wichita	958	5																	John Gould.
Winfield	Titus										2.26		0.98	0.0	5	16	6	8	nw.	J. C. Bostick.
Kansas.																				
Anthony	Harper	1,329	13	61.0		99	29	32	25	47	1.08	− 2.05	0.46	0.0	3	14	13	3	nw.	R. H. Beebe.
Ashland	Clark	1,951	22	59.7	+ 2.4	98	28	26	1	53	2.87	+ 0.91	2.05		6	16	13	1	ne.	C. W. Carson.
Burlington	Coffey	1,010	17	58.4	+ 1.8	93	29	29	20	53	1.00	− 2.49	0.54	0.0	4	9	19	2	s.	O. E. Sanford.
Chanute	Neosho	940	6	57.4		92	29	30	20	47	1.87		1.03	0.0	5	11	19	0	s.	Chase W. Brown.
Cimarron	Gray	2,700	4	55.8		95	28	25	1	50	1.07		0.53	0.0	3	16	11	3	nw.	Fred Mallonee.
Coldwater	Comanche	2,090	13	59.4		95	28	30	17†	45	1.78	+ 0.23	1.32	0.0	2	21	8	1	s.	J. L. Stanley.
Columbus	Cherokee	808	20	56.8	+ 0.3	87	29	32	20†	40	4.03	− 0.05	1.80	T.	7	7	9	14	nw.	O. E. Skinner.
Coolidge	Hamilton	3,346	13	54.0	+ 0.7	96	28	17	1	59	1.81	+ 0.15	1.41	0.0	3	19	8	3	nw.	W. R. Padley.
Cottonwood Falls	Chase	1,234	6	58.2		96	29	26	25	54	1.59		0.91	T.	9	17	5	8	n.	E. B. Greene.
Council Grove	Morris	1,191	1	56.7		95	28	28	20	57	1.45		1.10	T.	3	16	2	12	n.	Jas. Sharpe.
Cunningham	Kingman	1,680	26	59.8[e]	+ 3.1	99[e]	29	29[e]	6	50[e]	1.55	− 0.93	1.00	0.0	3	16	10	4	n.	W. H. Morton.
Dodge City	Ford	2,513	36	56.6	+ 2.2	95	28	30	6	47	0.93	− 0.94	0.50	0.0	4	14	12	4	nw.	U. S. Weather Bureau.
El Dorado	Butler	1,291	8	59.4		95	29	31	1†	47	1.70		0.86	T.	8	20	9	1	n.	W. Y. Miller.
Ellinwood	Barton	1,788	35	57.9	+ 2.6	95	28†	28	6	49	1.11	− 1.07	0.83	0.0	3	11	18	1	nw.	Martin Musil.
Emporia	Lyon	1,138	29	57.1	+ 1.9	95	29	30	16†	52	1.31	− 1.62	0.52	0.0	4	8	14	8	n.	W. H. Boyles.
Eureka	Greenwood	1,093	14	58.8		96	29	31	1	48	1.70	− 1.26	1.04	T.	8	13	13	4	s.	T. C. Peffer.
Fall River	do	925	14	58.4	+ 2.1	94	29	31	20	52	3.32	+ 0.63	0.98	T.	8	13	16	1	n.	J. McDaniel.
Fargo	Seward		1								0.55[f]		0.55[f]	0.0[f]	1[f]	13[f]	4[f]	7[f]	nw.	Frank Swink.
Fredonia	Wilson	864	7	59.4		95	29	32	25†	46	1.83		0.94	T.	9	11	9	10	nw.	B. W. Holmes.
Garden City	Finney	2,836	21	55.8[e]	+ 1.2	97[e]	28	24[e]	6	54[e]	1.29	− 0.77	1.13	0.0	3	18	8	4	n.	B. F. Stocks.
Great Bend	Barton	1,850	1								0.93		0.72		2	24	3	3	nw.	J. A. Pritchard.
Greensburg	Kiowa	2,235	3	57.0		95	28	30	17†	48	1.34		0.98	0.0	2	22	5	3	n.	C. C. Raymond.
Grenola	Elk	1,116	23	57.8	+ 0.4	94	29	30	25†	47	2.17	− 0.82	1.06	0.0	8	10	14	6	s.	R. M. Lawyer.
Howard ‖	do	1,112	3								2.21		0.92	0.0	7	18	5	7	sw.	J. W. Eby.
Hugoton	Stevens		6	56.4		100	28	26	1†	52	1.22		0.73	0.0	6	18	8	4	ne.	E. M. Anderson.
Hutchinson	Reno	1,535	20	59.3	+ 2.8	96	29	28	1†	50	0.98	− 1.50	0.74	0.0	6	20	7	3	nw.	E. S. Webster.
Independence	Montgomery	816	37	59.2	+ 0.3	94	29	30	20†	48	1.76	− 1.92	1.13	T.	9	9	8	13	s.	F. L. Kenoyer.
Iola	Allen	984	4	57.4	+ 3.2	92	29	30	20	48	1.10	− 1.69	0.51	T.	9	11	8	11	nw.	U. S. Weather Bureau.
Jetmore	Hodgeman	2,268	9	56.0		97	28	25	6	54	1.63		0.82	0.0	4	12	17	1	nw.	James Aiken.
Kingman	Kingman	1,504	2	61.2[e]		97	29	29[e]	6	51[e]	0.67		0.48	0.0	2	17	13	0	sw.	B. B. Anawalt.
La Crosse	Rush	2,061	8	56.4		95	28†	25	6	53	0.79		0.49	0.0	2	23	6	1	nw.	Rodney Torrey.
Lakin	Kearney	2,993	20	54.8	+ 0.7	97	28	23	2	58	1.43	− 0.84	0.98	0.0	3	15	14	1	s.	C. H. Longstreth.
Larned	Pawnee	2,090	25	58.0		96	28	26	17	50	1.47	− 0.37	0.84	0.0	3	18	8	4	n.	H. H. Wolcott.
Lebo	Coffey	1,138	24	57.6	+ 1.7	98	29	32	24	47	1.86	− 1.10	0.67	T.	7	12	14	4	nw.	J. J. Bowman.
Le Roy	do	990	1								1.14		0.54	T.	7	8	4	18	s.	F. W. Schmitt.
Liberal	Seward	2,843	3	58.2		97	28	27	5	47	1.34		0.72	0.0	4	18	2	10	nw.	Dr. R. T. Nichols.
Mc Pherson	Mc Pherson	1,493	21	58.6	+ 2.9	97	29	30	6†	49	1.09	− 1.52	0.72	0.0	4	17	5	8	nw.	Mrs. Nelia Poling.
Macksville	Stafford	2,032	21	56.8	+ 2.5	95	28	28	6†	50	0.91	− 1.26	0.55	0.0	2	17	6	7	nw.	Ed. F. Haberlein.
Madison	Greenwood	1,074	9	57.4		96	29	28	1†	55	2.00	− 0.85	0.83	T.	9	11	16	3	se.	C. A. David.
Marion	Marion	1,310	17	58.6	+ 1.8	96	29	28	6	54	1.24	− 1.67	0.68	T.	7	9	20	1	n.	D. D. McIntosh.
Medicine Lodge	Barber	1,475	17	58.8	+ 0.4	100	29	26	1	55	1.02	− 1.14	0.78	0.0	2	21	7	2	nw.	S. P. Garrison.
Medora	Reno	1,484	1								0.89		0.70		3	15	6	9	s.	M. L. Richenbrode.
Mount Hope	Sedgwick	1,410	13								1.19	− 1.36	0.67	0.0	2	18	10	2	n.	H. N. Renfrew.
Neosho Rapids	Lyon	1,092	5								1.10		0.70	T.	4	13	4	13	s.	Susan P. Whipple.
Ness City	Ness	2,260	17								1.13	− 1.05	0.36	0.0	5					J. K. Barnd.
Newton	Harvey	1,454	13	59.8	+ 5.2	97	29	31	6†	51	1.05	− 1.93	0.58	0.0	6	17	10	3	nw.	C. F. Walden.
Norwich	Kingman	1,496	14	61.4	+ 4.3	96	29	33	17†	43	1.88	− 1.04	1.12	0.0	4	12	18	0	nw.	N. I. Farris.
Oswego	Labette	899	16	58.5	+ 0.7	89	29	30	26	46	2.40	− 1.51	1.00	T.	6	7	16	7	sw.	Jos. M. Currigan.
Pratt	Pratt	1,950	15	57.7	+ 2.9	95	28†	27	6	51	1.40	− 1.49	1.00	0.0	2	21	2	7		E. H. Ellsworth.
Rome	Sumner	1,218	24	59.4	+ 1.6	97	29	27	1	54	1.60	− 1.59	0.50	0.0	6	21	7	2	s.	D. M. Adams.
Sedan	Chautauqua	834	25	58.3	+ 1.0	93	29	32	6†	48	1.53	− 1.74	1.05	0.0	6	13	11	6	s.	A. Y. Buckles.
Toronto	Woodson	1,040	13	57.7	+ 3.2	93	29	30	6†	52	2.35	− 0.79	1.30	T.	8	14	2	14	s.	M. A. Webb.
Ulysses	Grand	3,027	19			96[f]	28	28[f]	1†	46[f]	1.08	− 0.60	1.02	T.	2	7[e]	16[e]	4[e]	nw.	T. W. Marshall.
Walnut	Crawford	940	8	57.6		90	29	32	20†	45	2.24		0.67	T.	7	9	17	4	sw.	R. C. Harlan.
Wichita	Sedgwick	1,377	23	58.7	+ 2.1	96	24	32	19	39	0.96	− 1.73	0.50	0.0	5	12	12	6	nw.	U. S. Weather Bureau.
Winfield	Cowley	1,124	16	58.2	+ 1.3	93	30	30	5	49	1.51	− 1.45	0.75	0.0	5	17	8	5	s.	M. B. Light.
Yates Center	Woodson	1 068	31	58.0[e]	+ 2.5	93	29	30[e]	6	48[e]	2.43	− 0.47	1.10	T.	9	11[e]	18[e]	0[e]	s.	J. W. Tipton.
Oklahoma.																				
Ada	Pontotoc	1,001	3	60.7		89	29	32	25	41	4.92		2.14	0.0	7	20	0	10	s.	Dr. J. P. McKinley.
Alva	Woods	1,350	6	61.9		93	29	33	6†	47	2.82		2.20	0.0	2	21	3	6	s.	L. W. Sandefur.
Apache	Caddo	1,255	1	62.8		93	29	31	25	49	1.96		0.96	0.0	7	20	8	2	n.	G. D. Teeter.
Arapaho	Custer	1,575	17	63.4	+ 3.5	95	29	33	19	43	0.45	− 2.59	0.18	0.0	3	23	5	2	n.	Geo. E. Marsh.
Ardmore	Carter	872	9	61.9	+ 0.2	90	29	32	25	45	3.10	− 0.44	1.40	0.0	7	17	4	9	n.	H. T. Nisbett.
Bartlesville	Washington	687	4	60.0		92	29	34	26	38	2.47		1.54	0.0	6	12	14	4	nw.	Dr. A. P. Owens.
Beaver	Beaver	2,500	14	59.5	+ 2.1	99	28	27	6	55	2.51	+ 0.24	1.06	0.0	5	19	10	1	nw.	W. C. Frazer.
Blackburn	Pawnee	800	6	61.4		92	29	30	6†	49	6.43		2.60	0.0	5	19	8	3	nw.	J. Landis.
Cache	Comanche	1,350	5	60.6[b]		90[b]	29	26[b]	26	53[b]	1.70		0.48	0.0	5	22	5	3	n.	Frank Rush.
Calvin	Hughes	713	6								3.81		1.94	0.0	8	17	0	13	s.	Thomas Purcell.
Chandler	Lincoln	865	6	60.8	+ 0.3	90	29	33	25	48	4.72	+ 1.06	3.15	0.0	5	13	6	11	w.	Chas. L. Tuttle.
Chattanooga	Comanche	1,150	5	61.7		92	28	31	25	49	2.46		1.55	0.0	4	17	10	3	nw.	Squire Humble.
Chickasha	Grady	1,091	10	64.8[b]		92	28†	34[b]	25	47[b]	3.61		2.92	0.0	4	26	3	1	n.	J. C. Good.
Cloud Chief	Washita	1,400	10	63.7		95	29†	3[f]	19	52	T.		T.	0.0	0	18	12	0	nw.	J. P. Stutsman.
Dacoma	Woods	1,337	13	61.4	+ 3.3	96	29	31	6	51	1.45	− 1.83	0.96	0.0	2	14	16	0	nw.	R. H. Bruce.
Durant	Bryan	643	10	61.1		91	28	33	25†	48	2.94		1.55	0.0	6	15	7	8	s.	Nelson Houk.
Eldorado	Jackson	1,456	4	63.4		96	29	31	25	50	0.77		0.26	0.0	5	12	16	2	nw.	T. W. Lanham.
El Reno	Canadian	1,400	19	62.6	+ 2.6	92	29	31	18	43	1.97	− 0.93	0.82	0.0	5	5	21	4	s.	Pearl Maddox.
Enid	Garfield	1,269	11	61.7		95	30	31	6	51	1.61		0.94	0.0	3	17	5	8	s.	Uri. B. Worcester.
Erick	Beckham	2,058	7	62.0		95	27	31	24	49	2.09		1.34	0.0	6	13	13	4	s	A. W. Hanes.
Fairland	Ottawa	839	11	58.4	+ 0.7	89	29	30	26	44	2.54	− 1.25	0.70	0.0	7	9	10	11	s.	C. W. Pryor.

TABLE 1.—*Climatological data for April, 1910. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
***Oklahoma*—Cont'd.**																				
Fort Gibson	Muskogee	556	6								5.21	.....	1.66	0.0	8	14	4	12	s.	John T. Welsh.
Frederick	Tillman	1,293	7	63.8	.....	94	29	31	25	50	1.05	.....	0.53	0.0	4	17	8	5	nw.	B. B. Bradley.
Gage	Ellis	2,136	8	60.2	.....	95	29	27	6	52	1.20	.....	0.90	0.0	3	21	5	4	n.	C. H. Holmes.
Goodwell	Texas	3,300	....	58.4	.....	95	28	28	6	47	1.83	.....	0.75	0.0	3	19	0	11	n.	S. W. Black.
Gutbrie	Logan	1,000	8	62.2[a]	+ 0.5	90[a]	21†	33[a]	6†	47[a]	4.06	+ 0.93	1.97	0.0	4	19[c]	5[c]	3[c]	s.	G. W. Derrick.
Guymon	Texas	3,133	1																	A. L. Mordt.
Harrington	Roger Mills	2,200	7	60.6	.....	93	29	33	25	45	3.20	.....	2.00	0.0	4	24	2	4	sw.	T. Compton.
Hartshorne	Pittsburg	700	12	63.2	+ 0.9	89	29	31	25	45	2.65	− 1.45	1.15	0.0	4	11	10	9	s.	Edward Glendenning.
Healdton	Carter	900	17	62.0	− 0.9	89	28†	28	25	50	4.59	+ 0.18	1.63	0.0	7	19	10	1	s.	C. H. Heald.
Helena	Alfalfa	1,396	3	61.2	.....	97	29	32	6†	46	1.04	.....	0.49	0.0	4	22	4	4	s.	Frank Horsfall.
Hennessey	Kingfisher	1,166	16	63.4[a]	+ 2.9	98[a]	29	32[a]	6†	50[a]	0.85[a]	− 1.84	0.40[a]	0.0[a]	4[a]	9[a]	18[a]	2[a]	n.	W. W. Parks.
Hobart	Kiowa	1,396	7	64.1	.....	96	29	32	25	48	0.44	.....	0.29	0.0	4	16	11	3	n.	Roy Benedict.
Holdenville	Hughes	900	10	60.2	+ 0.9	87	28†	31	25	42	4.33	+ 0.92	2.05	C.0	7	22	7	1	s.	Miss M. Rutherford.
Hooker	Texas	2,999	5	57.6	.....	97	28	24	6	54	1.11	.....	0.62	0.0	4	12	2	16	n.	H. N. Kelley.
Hurley	Cimarron	3,600	2	55.8	.....	94	29	23	4	54	0.75	.....	0.75	0.0	1	17	7	6	n.	C. W. Meyers.
Idabel	McCurtain	474	3			97	28				3.58	.....	1.09	0.0	6	20	0	10	.....	M. L. Henderson.
Jefferson	Grant	1,062	17	59.7	+ 1.5	96	29	27	6	53	2.06	− 0.90	1.42	0.0	4	16	13	1	s.	T. E. Beck.
Kenton	Cimarron	4,000	11	56.6	+ 3.1	93	28	26	6	50	0.69	− 1.21	0.50	T.	5	17	10	3	n.	L. A. Wikoff.
Kingfisher	Kingfisher	1,046	13	63.0	+ 3.1	94	29	31	6†	51	1.29	− 1.95	0.51	0.0	3	15	10	5	s.	J. C. Cross.
McAlester	Pittsburg	698	18	62.8	.....	89	29	34	25†	43	3.60	− 1.77	1.10	0.0	7	16	1	13	nw.	Wm. Noble.
McComb	Pottawatomie	1,200	16	61.8	+ 0.5	89	25	31	25	43	2.50	− 0.85	1.95	0.0	2	14	14	2	s.	Jas. E. McNair.
Mangum	Greer	1,585	18	61.2[c]	− 1.0	95	29	33[c]	1	47[c]	1.07	− 1.51	0.62	0.0	4	16	9	5	nw.	M. J. Northcuff.
Marlow	Stephens	1,292	10	63.6	+ 3.3	92	29	34	25	51	4.10	+ 0.44	3.50	0.0	5	19	1	10	n.	W. B. Anthony.
Meeker	Lincoln	1,030	17																	Dr. J. B. Baugh.
Muskogee	Muskogee	614	12	60.6	+ 0.6	87	29	31	26	44	4.29	+ 0.22	1.58	0.0	5	14	11	5	s.	Prof. E. N. Collette.
Mutual	Woodward	.....	4	61.0	.....	100	29	29	6	53	1.89	.....	0.95	0.0	2	23	3	4	s.	Thos. Martin.
Neola	Caddo	1,500	5	62.2	.....	92	29	30	25	48	1.43	.....	0.66	0.0	5	15	11	4	s.	R. N. Schooling.
Newkirk	Kay	1,149	14	62.8[b]	+ 4.2	97	29	31[b]	25	44[b]	1.19	− 1.93	0.70	0.0	3	17	11	2	s.	P. H. Albright & Co.
Norman	Cleveland	1,171	17																	Walter H. Meier.
Oakwood	Dewey	1,854	....	60.7	.....	93	29	29	25	51	0.98	.....	0.55	0.0	3	21	6	3	s.	Dr. F. P. Osborn.
Okeene	Blaine	1,194	7	61.4	.....	94	29	29	25	46	2.11	.....	1.04	0.0	5	21	8	1	s.	Dr. L. H. Murdoch.
Oklahoma	Oklahoma	1,247	21	61.3	+ 1.7	89	29	35	25	37	4.31	+ 1.51	3.75	0.0	5	16	10	4	s.	U. S. Weather Bureau
Okmulgee	Okmulgee	752	8	60.6	.....	86	28	31	26	45	3.57	.....	1.42	0.0	5	14	8	8	s.	J. L. Maynard.
Pauls Valley	Garvin	880	11																	A. M. Foss.
Pawhuska	Osage	918	12	60.9	+ 2.6	92	29	31	25	44	2.13	− 1.23	1.27	0.0	6	13	12	5	s.	R. C. Block.
Perry	Noble	1,060	13	61.2[c]	+ 2.4	93	29	30[c]	25	43[c]	3.12	− 0.66	1.67	0.0	6	16	11	3	s.	J. A. Douglas.
Ravia	Johnson	796	9	61.4	.....	89	28†	34	25	45	4.86	.....	1.90	0.0	7	17	5	8	s.	R. G. Guptill.
Sac & Fox Agency	Lincoln	900	18	61.0	+ 0.1	89	30	32	25	43	4.71	+ 1.23	3.01	0.0	3	23	3	4	s.	D. B. Taylor.
Shawnee	Pottawatomie	1,041	10	59.2[d]	.....	89[d]	29	32[b]	24†	48[d]	3.82	+ 0.47	2.97	0.0	6	12[b]	8[b]	8[b]	s.	Neal R. Clark.
Snyder	Kiowa	1,356	4	63.8	.....	93	28†	32	25	51	0.59	.....	0.31	0.0	3	15	14	1	nw.	Dr. W. G. Woodard.
Stillwater	Payne	880	18	60.0	+ 0.7	91	29	33	6†	46	3.13	− 0.30	1.63	0.0	4	14	14	2	s.	J. M. Speidel.
Supply	Woodward	2,100	3	59.5	.....	96	29	27	6	53	3.12	.....	1.55	0.0	3	16[a]	11[a]	2[a]	nw.	A. H. Trumbo.
Tulsa (1)	Tulsa	700	22	59.9	.....	91	29	35	26	48	2.62	− 0.97	1.66	0.0	6	10	5	15	n.	William Hall.
Vinita	Craig	698	7	58.7	.....	88	3	30	26	44	3.43	.....	1.50	T.	6	13	13	4	s.	C. E. Lahman.
Wagoner	Wagoner	588	14	58.8[f]	.....	88[f]	29	29[f]	26	44[f]	3.43[f]	0.00	1.22[f]	T. [f]	5[f]	10[f]	3[f]	11[f]	s.	S. L. Hatfield.
Waukomis	Garfield	1,258	14	60.7	+ 1.9	95	29	30	25	45	0.55	− 2.25	0.40	0.0	4	22	6	2	nw.	R. C. Shades.
Waurika	Jefferson	988	....	65.3	.....	95	21	32	25	51	1.07	.....	0.77	0.0	4	22	7	1	nw.	B. A. Swindler.
Weatherford	Custer	1,639	9	61.3	.....	94	29	32	25†	49	0.76	.....	0.39	0.0	3	19	7	4	s.	M. D. Reed.
Webbers Falls	Muskogee	479	12	58.8	− 1.3	89	29	28	26	50	3.96	+ 0.30	1.58	0.0	7	7	19	4	w.	B. D. Boulineau.
Whiteagle	Kay	945	5	62.2	.....	94	29	32	25	45	1.37	.....	0.75	0.0	4	23	4	3	nw.	J. M. Dankwardt.
Woodward	Woodward	1,886	1	60.1	.....	95	3†	29	6	50	1.97	.....	1.16	0.0	4	24	5	1	nw.	R. A. Boyle.
Missouri.																				
Belle	Maries	.....	18	55.4	+ 1.2	89	30	26	24	41	2.20	− 2.04	0.67	1.7	9	4	15	11	nw.	A. J. Wofford.
Birchtree	Shannon	1,200	17	55.3[a]	− 1.7	88[a]	29	28[a]	24	38[a]	5.74	+ 1.25	1.70	T.	7	14	3	13	nw.	V. H. Kirkendall.
Cape Girardeau	Cape Girardeau	346	5								4.40	.....	1.54	T.	12	15	2	13	nw.	D. L. Albert.
Caruthersville	Pemiscot	.....	20	59.6	+ 0.4	90	29	32	24†	42	6.26	+ 2.76	1.71	T.	10	13	5	12	w.	H. E. Averill.
Dean	McDonald	.....	11	55.9	− 1.7	88	29	28	20†	46	3.44	+ 0.79	1.34	T.	9	18	4	8	w.[e]	H. E. Dean.
Doniphan	Ripley	440	6	56.2[a]	.....	86[a]	29	32[a]	25	40[a]	6.60[a]	.....	2.20[a]	T. [a]	9[a]	12[a]	3[a]	14[a]	s.	W. W. Martin.
Farmington	St. Francois	889	3	54.4	.....	88	29	21	25	42	3.29	.....	0.75	0.7	10	.....	.....	.....	.....	Miss Carrie Sneed.
Gano	Dent	.....	7	56.2	.....	90	29	25	24	40	2.98	.....	0.66	T.	15	9	6	15	nw.	A. C. Leech.
Goodland	Iron	900	5	53.6[a]	.....	88[a]	29	28[a]	24†	43[a]	6.66[a]	.....	3.50[a]	T.	10[a]	11[a]	3[a]	15[a]	s.	F. M. Adams.
Greenville	Wayne	.....	16	56.9	+ 0.8	88	29	31	24	45	4.47	− 0.43	1.54	T.	8	7	23	0	nw.	A. G. Templeton.
Hollister	Taney	.....	.....	57.5	.....	91	30	31	20†	50	1.30	.....	0.75	0.0	3	18	0	12	sw.	W. P. Chapman.
Ironton	Iron	925	32	54.8	− 0.6	88	29	28	24†	47	3.81	− 0.57	1.10	2.5	15	6	12	12	s.	W. H. Delano.
Jackson	Cape Girardeau	458	19	55.6	0.0	81	9†	28	24	37	4.26	− 0.30	0.92	1.6	13	12	3	15	s.	L. M. Bean.
Joplin	Jasper	979	32	58.1	.....	88	29	33	26	38	3.57	− 0.20	1.40	T.	9	8	11	11	se.	Miss E. Russum.
Koshkonong	Oregon	911	10	58.1	.....	87	29	29	25	33	6.33	.....	1.52	T.	9	11	6	13	nw.	J. W. Hitt.
Lamar	Barton	964	30	55.9	− 1.0	88	29†	32	24†	48	4.61	+ 0.52	1.67	T.	10	11	5	14	s.	E. H. Adams.
Marble Hill	Bollinger	420	19	55.5	− 0.5	84	30†	29	24	43	3.91	− 0.62	1.30	T.	6	11	10	9	n.	A. F. Hendricks.
Mountaingrove	Wright	1,490	11	54.2	.....	85	29	26	24	35	2.72	− 1.35	0.78	T.	13	10	2	18	nw.	Mo. Fruit Exp. Station.
Mount Vernon	Lawrence	1,480	34																	Dr. O. H. Brown.
Neosho	Newton	1,023	27	56.8	− 1.5	87	29	29	20	44	2.73	− 1.39	0.70	T.	10	11	11	8	sw.	W. O. Buck.
New Madrid	New Madrid	285	16								5.03	+ 1.04	1.25	T.	13	14	1	15	nw.	Miss Josie Smith.
Oakfield	Franklin	793	18	56.0	0.0	90	29	26	24	31	3.44	− 0.67	0.67	4.0	16	5	11	14	nw.	E. E. Stines.
Olden	Howell	1,246	20	55.9	− 1.1	86	29	27	25	37	4.10	.....	0.87	T.	8	11	7	12	sw.	J. D. Evans.
Perryville	Perry	582	1	51.9	.....	80	10†	26	24	42	2.75	.....	1.05	0.0	9	17	0	13	s.	Superintendent of Schools
Rolla	Phelps	1,092	29	55.0	.....	90	29	26	24	38	3.50	− 1.95	0.69	0.5	16	11	2	17	sw.	Prof. P. J. Wilkins.
Sikeston	Scott	328	15	58.6	+ 0.8	85	29	31	24†	35	6.10	+ 1.76	1.52	T.	9	12	5	13	sw.	A. A. Harrison.
Springfield	Greene	1,350	22	54.7	+ 1.0	85	29	28	24	33	2.52	− 1.34	0.92	1.5	12	12	7	11	nw.	U. S. Weather Bureau.
Steelville	Crawford	746	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Edwin Pumphrey.
Willowsprings	Howell	1,300	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	John Lovewell.
Kentucky.																				
Blandville	Ballard	445	30	55.2	− 2.3	81	29	28	24	32	8.06	+ 4.01	2.53	6.5	15	5	9	16	sw.	E. W. Horr.
Lynnville	Graves	.....	9	57.6	.....	84	9	31	24	39	5.45	.....	2.05	7.0	15	10	10	10	sw.	Wm. Scherffius.
Tennessee.																				
Arlington	Shelby	.....	28	57.8	− 2.2	83	29	32	25	40	6.17	.....	4.19	T.	8	9	8	13	s.	A. T. B. Etheridge.
Bolivar	Hardeman	450	23	58.7	− 0.8	87	15	32	25	41	7.81	+ 3.46	5.11	T.	8	11	3	16	n.	Miss M. A. Smith.
Brownsville	Haywood	361	25	58.6	− 2.1	82	10	32	25†	37	6.55	.....	4.70	T.	6	10	8	12	s.	Miss Hattie N. Moses.
Covington	Tipton	311	23	58.9	− 1.6	82	29	33	25	30	5.41	+ 1.19	3.50	T.	11	15	0	15	s.	J. S. Ruffin.
Dyersburg	Dyer	310	27	59.0	− 0.7	83	29	32	24†	32	4.92	− 0.36	2.40	T.	7	13	1	16	se.	Miss M. A. Sinclair.
Jackson	Madison	450	17	58.6	− 2.0	83	11†	32	25	34	5.28	+ 0.16	2.70	T.	12	5	14	11	sw.	T. H. Hartmus.
Kenton	Obion	.....	8	58.6	.....	83	9†	31	24	35	6.36	.....	2.23	4.7	14	11	9	10	sw.	G. S. Martin.
Memphis	Shelby	469	39	60.0	− 1.8	83	15	32	25	29	6.95	+ 2.12	4.58	T.	11	10	6	14	sw.	U. S. Weather Bureau.
Milan	Gibson	440	27	58.0	− 1.9	88	3	32	25	42	6.41	.....	4.13	T.	13	9	2	19	s.	O. F. Cantwell.
Trenton	do	345	27	57.7	− 2.0	83	10	31	24†	40	5.02	+ 0.54	2.65	T.	7	12	11	7	sw.	Prof. F. L. Dennison.
Union City	Obion	360	12	59.2	− 0.2	86	29	30	24	37	6.84	.....	1.87	9.0	12	12	13	5	nw.	J. B. Kinsey.

TABLE 1.—*Climatological data for April, 1910. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Arkansas.																				
Alicia	Lawrence		6	58.6		88	10	34	26	40	4.60		2.10	T.	4	11	10	9	sw.	McCullough & Guelck.
Amity	Clark	250	18	60.8	− 1.7	87	28	27	25	46	5.56	+ 0.69	1.68	T.	12	12	8	10	sw.	Prof. S. M. Samson.
Arkadelphia (near)	do	250	3	62.2[a]		89[a]	30	31[a]	26	47[a]	4.66		1.60	0.0	7	14	6	10	nw.	J. A. Ross.
Arkansas City	Desha	145	27								5.25	+ 1.47	1.85	0.0	9					W. C. Blundell.
Batesville (2)	Independence	271	6								4.94		1.16	T.	11					Miss Lelia I. Teter.
Bee Branch	Van Buren		18	59.4[a]	− 1.6	87[a]	29	25[a]	25	44[a]	4.10	+ 0.33	1.30	0.0	6					J. E. Scanlon.
Benton	Saline	283	3	60.8		88	15	32	25†	42	6.29		1.85	0.0	8	9	11	10	s.	J. E. Evans.
Bentonville	Benton	1,303	5	56.3	− 0.6	84	29	30	25	40	2.56	− 1.33	0.81	0.2	11	12	6	12	s.	U. S. Weather Bureau.
Bergman	Boone	1,324	14																	John T. Maxey.
Black Rock	Lawrence		6								6.20		1.39	0.0	12					S. J. Howe.
Brinkley	Monroe	226	24	59.4	− 2.3	87	29	31	25	46	6.36	+ 1.83	1.91	0.0	8					H. L. D. Whitson.
Calico Rock	Izard	361	6								6.44		2.96	0.0	8					W. H. Stoner.
Camden	Ouachita	158	25	63.1	− 0.5	89	20	30	25	52	7.88	+ 3.32	2.98	0.0	14					R. H. Quarterman.
Centerpoint	Howard		10	62.1		89	29	30	25	46	4.48		1.50	0.0	7	14	4	12	se.	J. M. Huddleston.
Clarendon	Monroe	171	6								5.67		1.77	T.	12					Mrs. B. E. Bishop.
Conway	Faulkner	309	27	59.9	− 2.4	87	29	33	26	42	6.19	+ 2.44	1.83	T.	10	11	12	7	s.	G. H. Burr.
Corning	Clay	293	18	59.6	+ 0.5	83	29†	32	24	35	7.80	+ 3.62	2.35	0.2	11	8	7	15	s.	Jacob Brobst.
Dardanelle	Yell	330	24	59.4		89	29	30	26	49	5.03	+ 1.31	1.12	T.	9					A. Bernard.
Dennard	Van Buren																			Fred B. Brown.
Dodd City	Marion	1,175	29	57.0[b]	− 3.3	89[b]	30	28[b]	25	43[b]	3.05	− 0.86	0.80	1.0	7				s.	Neal Dodd.
Dutton	Madison		9	55.0[b]		85[b]	29	27[b]	25	40[b]	3.17		0.81	0.2	9					Edward Mize.
Earl	Crittenden		4	60.2		88	29	32	25	38	4.84		1.66	T.	8	18	4	8		W. J. Moss.
Eldorado	Union	265	6	62.4		87	29	33	25†	43	3.80		1.78	0.0	12					Fred A. Babb.
England	Lonoke		4	61.2[a]		87[a]	29	30[a]	25	41[a]	6.17		1.50	0.0	9					J. C. Chenault.
Eureka Springs	Carroll		9	58.8		90	30	28	25	43	2.05		0.48	0.2	6	9	14	7	sw.	S. H. Britts.
Fayetteville	Washington	1,451	21	57.4	− 1.4	84	29	30	26	39	3.88	− 0.51	0.84	T.	10	12	10	8	sw.	University of Arkansas.
Fort Smith	Sebastian	481	28	60.0	− 1.7	86	29	33	26	39	2.22	− 1.68	0.83	T.	9	12	7	11	e.	U. S. Weather Bureau.
Fulton	Hempsted	264	6								5.28		1.88	0.0	9					B. C. Logan.
Hardy	Sharp	643	12	57.8		87	29	30	25	38	4.94	+ 0.92	1.50	T.	11	8	5	17	nw.	C. A. Caywood.
Helena (2)	Phillips	182	9								5.50	+ 0.03	2.88	T.	8					B. F. Modisett.
Hot Springs	Garland	600	4	58.8		86	29	29	25†	46	5.11		1.06	T.	11	22	5	3	w.	Hot Springs Water Co.
Huttig	Union	85	3	64.4[a]		88[a]	30	32[a]	25	41[a]	3.53		1.10	0.0	6					C. A. Berry.
Jonesboro	Craighead	345	15	59.8	− 2.2	85	15	30	24†	42	3.47	− 0.49	1.78	T.	7	11	12	7	s.	Benedictine Sisters.
Junction	Union		17	65.7	+ 2.5	90	30	30	25	38	2.88	− 1.78	2.03	0.0	5	14	7	9	sw.	J. A. Lowderback.
Lake Farm	Jefferson	195	3	60.5		86	29	27	25	45	6.07		2.03	T.	8	12	12	6	s.	R. H. Gillespie.
Lewisville	Lafayette	262	7	63.4		88	28†	32	25	42	7.33		2.00	T.	10	13	7	10		F. W. Youmans.
Little Rock	Pulaski	357	31	60.4	− 2.3	86	29	33	26	34	5.73	+ 1.22	2.35	0.0	10	12	5	13	nw.	U. S. Weather Bureau.
Lutherville	Johnson	775	13	58.2	− 0.8	86	29	29	26	43	5.54		1.95	T.	9	9	11	10	w.	Herman Hentschel.
McNeil	Columbia	321	3																	L. A. Smith.
Malvern	Hot Spring	277	23	59.2	− 2.7	86	29	31	25	42	5.90	+ 1.81	1.78	0.0	12					Miss L. C. Smith.
Mammoth Spring	Fulton		6	56.1		88	29	29	25	44	4.96		1.35	0.2	10	6	19	5		F. Wallick.
Marked Tree	Poinsett		6								5.74		1.75	T.	9					L. Smith.
Mena	Polk	1,100	24																	D. H. Hopkins.
Monsville	Newton		17	55.4	− 1.3	81	29	26	25	35	5.44	+ 0.20	1.09	T.	7	13	4	13	n.	Theo. Ober.
Mount Nebo	Yell	1,750	20	57.1	− 2.6	87	29	22	25	42	2.78	− 1.04	1.80	0.0	6	18	7	5	sw.	T. G. Church.
Newport (1)	Jackson	231	26	59.8	− 1.9	87	29	34	25	43	4.57	+ 0.07	1.13	0.0	10					L. R. Cobb.
Ozark	Franklin	377	19	60.2	− 2.5	89	30	32	25†	40	3.36	− 0.53	0.90	T.	10	17	7	6	w.	R. M. Adams.
Pine Bluff	Jefferson	215	22	61.0	− 2.6	88	29	30	25	44	8.74	+ 4.14	3.90	0.0	9					J. M. Hudson.
Pocahontas	Randolph		18	59.3[b]	0.0	87[a]	29	31[b]	24	40[b]	8.46	+ 4.31	2.20	0.0	9	12	4	14		Benedictine Sisters.
Pond	Benton	1,250	13	56.1	+ 0.2	85	29	27	25†	43	3.83	+ 0.10	1.69	T.	10	6	16	8	sw.	A. F. Stevens.
Portland	Ashley	122	1	62.0		88	15	31	25	45										T. A. Corson.
Prescott	Nevada	327	22	60.9	− 1.2	87	28†	30	25†	47	7.20	+ 2.42	2.08	0.0	11					A. M. Ellsworth.
Rogers	Benton	1,385	19	56.6	− 1.6	85	29	30	20†	42	3.15	− 1.16	0.85	0.8	10	9	7	14	s.	Carl A. Stark.
Spielerville	Logan	1,050	13	60.8	+ 0.1	89	29	34	25	41	4.43	+ 0.99	1.65	0.0	7	14	6	10	sw.	New Subiaco Abbey.
Springbank	Miller	182	3								6.53		2.05	0.0	10					G. Field.
Stuttgart	Arkansas	495	23	60.4	− 2.2	84	15	31	25	40	6.22	+ 1.93	1.22	T.	11	12	13	5	w.	H. A. Buerkle.
Texarkana	Miller	332	26	62.4	− 1.2	86	29	34	25	42	4.67	+ 0.42	1.87	0.0	12					F. F. Quinn.
Warren	Bradley	304	15	62.4	+ 0.1	88	29	30	25	41	5.81	+ 0.81	1.62	0.0	9					W. J. Savage.
Whitecliffs	Little River	206	6								5.09		1.65	0.0	9					John E. Payton.
Wiggs	Garland		17	59.0	− 2.2	87	29	28	25†	45	5.82	+ 1.35	2.07	T.	9	9	18	3	sw.	S. D. Jester.
Wynne	Cross		2	59.6		88	4	31	25	41	6.41		1.78	T.	11					R. R. Poole.
Mississippi.																				
Anguilla	Sharkey	107	2	64.2		90	15	30	26	41	1.97		1.41	0.0	4	12	8	10	sw.	E. W. Cook.
Austin	Tunica	200	14	61.1	− 0.9	86	29	32	25	40	6.27	+ 2.13	2.28	T.	9	12	12	6	nw.	H. J. Irvine.
Batesville	Panola	230	22	59.8	− 2.0	89	14	32	25	44	5.22	+ 1.00	2.50	0.0	8	19	6	5	s.	J. M. Cox.
Byhalia	Marshall	390	1								8.05		5.12	T.	11	6	17	7	sw.	Tallahatchie Drng. Com.
Canton	Madison	228	20	63.0	− 1.8	88	14	32	25	37	3.31	− 0.81	2.40	T.	8	12	11	7	se.	Dr. G. W. Smith-Vaniz.
Clarksdale	Coahoma	177	3	61.8		89	29	32	25	41	3.95		1.40	T.	9	12	2	16	se.	J. F. Durham.
Coffeeville	Yalobusha	241	1								4.48		1.93	T.	9	15	11	4	s.	Tallahatchie Drng. Com.
Corinth	Alcorn	479	22	59.6	+ 0.5	85	29	32	25	39	4.02	− 0.86	2.34	T.	13	13	3	14	se.	M. A. Candler.
Crenshaw	Panola	187	1								5.15		1.75	0.5	13	7	17	6	sw.	Tallahatchie Drng. Com.
Denmark	LaFayette		1								4.80		2.00	0.0	7					Do.
Duck Hill	Montgomery		11	61.0[d]	− 1.8	87[d]	29	31[d]	25†	48[d]	3.06	− 1.89	1.42	T.	7	13[c]	3[c]	11[c]	s.	W. H. Eskridge.
Edwards	Hinds	222	23	63.6[b]	− 2.5	86	14†	30[b]	25	37[b]	5.16	+ 0.77	3.74	0.0	7	16	13	1	se.	C. R. Knox.
Enid	Tallahatchie		1								5.09		2.50	T.	10				s.	Tallahatchie Drng. Com.
Fayette	Jefferson	270	9	63.9	− 1.9	89	13	29	25	38	3.97	− 2.11	3.08	0.0	4	15	12	3	sw.	T. L. Darden.
Greenville	Washington	126	23	63.4	− 1.1	89	29	33	26	41	3.06	− 0.94	0.90	0.0	8	17	3	10	se.	F. L. Harbison.
Greenwood	Le Flore	140	10	61.6	− 1.4	88	15	32	25	41	3.80	+ 0.05	2.02	0.5	8	12	7	11	sw.	J. H. Stephen.
Grenada	Grenada	194	1								5.07		1.68	T.	8	17	6	7	se.	Tallahatchie Drng. Com.
Hernando	De Soto	391	22	60.4	− 1.2	88	15	33	25	38	8.46		5.16	T.	10	14	3	13	s.	Mrs. Sarah B. Jones.
Hickory Flat	Benton	435	1								5.08		1.98	2.0	10	8	14	8	w.	Tallahatchie Drng. Com
Holly Springs	Marshall	600	23	58.8	− 2.9	83	15	30	25	32	4.91	+ 0.01	1.77	2.0	14	12	1	17	se.	L. B. Mosby.
Kosciusko	Attala	437	20	60.2	− 3.2	84	29	30	26	39	3.80	− 0.77	1.10	T.	10	11	15	4	se.	E. L. Lucas.
Lake Cormorant	De Soto	206	1								7.75		4.12	0.4	12	8	17	5	se.	Tallahatchie Drng. Com.
Lula	Coahoma	182	1								5.02		1.55	T.	9	8[a]	7[c]	14[a]		Do.
Malone	Marshall		1								4.55		1.85	T.	5	16	2	12	s.	Do.
Marks	Quitman	163	1																	Do.
Natchez	Adams	206	22	66.4	− 1.0	92	13	34	25	37	3.71	− 0.98	2.89	0.0	5	14	5	11	n.	J. C. Weir, jr.
New Albany	Union	398	1								4.12		1.80	1.9	7	7	22	1	n.	Tallahatchie Drng. Com.
Pontotoc	Pontotoc	475	21	60.0	− 2.0	84	15†	31	25	35	2.97	− 0.73	1.27	2.0	5	10	19	1	se.	Dr. C. W. Bolton.
Port Gibson	Claiborne	116	22	63.0	− 2.5	87	13	33	25	41	5.96	+ 1.24	4.48	0.0	6	17	1	12	s.	H. H. Crisler.
Ripley	Tippah		11																	S. W. Pegram.
Rosedale	Bolivar	143	2	61.0		88	15	33	25	40	7.60		2.00	T.	8	14	4	12	sw.	W. A. Shelby.
Senatobia	Tate	284	1								7.03		3.01	T.	14	13	1	16	s.	Tallahatchie Drng. Com
Shoccoe	Madison		7	62.7		87	14	28	25	40	3.62	− 0.44	3.30	T.	4	19	4	7	s.	J. C. Pitchford.
Suffolk	Franklin		9	65.6		90	13	31	25	38	3.15	− 1.09	1.49	0.0	7	13	10	7	sw.	Prof. Geo. H. Kent.
Swan Lake	Tallahatchie	148	9								5.72		2.50	T.	6					B. F. Saunders.

TABLE 1.—*Climatological data for April, 1910. District No. 7*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Mississippi—Cont'd.																				
Tchula	Holmes	130	5	64.2[d]	.....	90[a]	15	30[d]	26	42[d]	3.23	.....	1.70	0.0	6	10	12	8	w.	Dr. M. P. Winkler.
University	LaFayette	502	17	61.1	− 1.4	86	29	31	25	37	4.95	+ 0.67	2.25	1.5	6	11	14	5	n.	Prof. J. H. Dorroh.
Utica	Hinds	287	6	63.6	.....	87	14	31	25	39	4.13	.....	3.57	0.0	8	8	20	2	nw.	Dr. J. B. Dudley.
Vicksburg	Warren	247	39	64.2	− 1.0	85	14	34	25	30	3.97	− 1.19	3.42	0.0	6	12	6	12	se.	U. S. Weather Bureau.
Water Valley	Yalobusha	300	21	61.4	− 1.9	87	15	31	25	40	3.93	− 0.82	1.70	T.	6	11	6	13	s.	Miss Loula Erikson.
Woodville	Wilkinson	560	17	65.6	− 1.1	88	13	32	25	32	5.67	+ 0.64	4.95	0.0	6	21	9	0	se.	James E. Lee.
Yazoo City	Yazoo	116	16	64.4	− 0.8	93	15	31	25	39	3.27	− 1.05	2.22	0.0	6	14	3	13	se.	H. S. Orr.
Louisiana.																				
Abbeville	Vermilion	18	22	68.0	− 1.0	89	13	36	25	38	1.62	− 2.63	1.35	0.0	2	24	2	4	se.	Hon. C. J. Edwards.
Alexandria	Rapides	77	19	64.2	− 2.7	88	12	32	25	43	4.07	− 0.37	1.76	0.0	5	16	4	10	s.	Miss Nellie Graham.
Amite	Tangipahoa	130	22	65.6	− 1.7	89	12	34	25	40	3.70	− 1.81	2.30	0.0	2	6	23	1	n.	Miss Lula M. Wentz.
Baton Rouge	E. Baton Rouge	35	22	68.4	+ 1.0	87	13	42	25	28	1.10	− 3.52	0.36	0.0	6	21	1	8	se.	Elmo M. Bott.
Burnside‖	Ascension	20	10	65.6[b]	− 1.6	88[b]	12	37[b]	25†	42[b]	0.71	− 4.51	0.35	0.0	3	17	4	9	nw.	C. S. McFarland.
Burrwood	Plaquemines	1	20	69.3	+ 1.4	81	12	46	25	18	0.48	− 3.04	0.48	0.0	1	16	6	8	nw.	Graham Myers.
Calhoun	Ouachita	180	17	63.7	− 0.1	89	15	32	25	43	1.91	− 2.83	0.65	0.0	8	14	5	11	s.	N. L. Exp. Station.
Cameron	Cameron	6	15	66.6	− 2.7	81	19	40	25	34	1.07	− 2.54	0.82	0.0	2	9	16	5	se.	State Biologic Station.
Cheneyville	Rapides	67	20	65.4	− 1.9	90	14	33	25†	44	4.30	− 0.29	3.20	0.0	4	17	7	6	w.	Walter I. Tanner.
Clinton	East Feliciana	113	20	65.3	− 1.9	88	13	35	25	36	2.22	− 3.04	1.70	0.0	4	14	5	11	n.	John A. White, Jr.
Collinston	Morehouse	65	8	.....	.....	90[j]	15	30[j]	25	42[j]	.....	.....	.....	0.0	.....	.....	.....	.....	.....	W. A. Page.
Covington	St. Tammany	39	17	65.9	− 1.9	89	12	36	25	44	0.57	− 4.00	0.41	0.0	3	15	7	8	s.	C. Champagne.
Dodson	Winn	.....	1	65.0	.....	89	15	28	25	39	1.99	.....	1.24	0.0	2	18	6	6	s.	J. P. Lucas.
Donaldsonville	Ascension	33	20	69.7	+ 1.5	88	15	44	25	34	1.13	− 3.49	0.75	0.0	3	22	2	6	e.	John F. Park.
Farmerville	Union	177	20	63.7[e]	− 1.0	87[e]	14	32[e]	25	40[e]	2.09	− 3.11	1.08	0.0	7	10	10	10	s.	W. P. Chandler.
Ferriday	Concordia	.....	3	64.7	.....	89	12	31	25	41	4.56	.....	4.00	0.0	3	20	3	7	s.	R. Z. Sclater.
Franklin	St. Mary	10	18	68.0	− 0.9	89	10†	42	25†	39	0.25	− 4.29	0.15	0.0	2	16	3	11	n.	Miss Josephine M. Bonney.
Grand Cane	De Soto	302	4	64.2	.....	88	28	32	25	46	1.71	.....	0.54	0.0	3	21	3	6	s.	J. J. Paxton.
Grand Coteau	St. Landry	93	23	67.0	− 1.5	88	12†	34	25	42	2.89	− 1.37	1.65	0.0	6	19	10	1	nw.	St. Charles College.
Hammond	Tangipahoa	44	15	65.4	− 2.0	88	12	34	25	39	0.13	− 5.02	0.15	0.0	1	26	4	0	se.	C. C. Carr.
Houma	Terrebonne	.....	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. M. Haggerty.
Jennings	Calcasieu	30	12	66.0	− 1.1	89	28	33	25†	47	1.17	− 2.87	0.80	0.0	5	17	9	4	sw.	J. F. Buch.
Lafayette	Lafayette	36	21	67.3[a]	− 0.8	93	7	41[a]	26	46[a]	1.78	− 2.38	0.73	0.0	8	15	7	8	e.	J. J. Davidson.
Lake Charles	Calcasieu	22	22	65.8	− 1.6	90	28	32	26	54	0.85	− 2.27	0.71	0.0	2	24	0	6	s.	A. O. Boudreaux.
Lakeside	Cameron	.....	9	67.0	.....	87	12	38	25	35	0.65	.....	0.65	0.0	2	26	0	4	nw.	Miss L. T. Nunnemacher.
Lawrence	Plaquemines	6	18	68.5	+ 0.6	89	15	41	25	36	1.41	− 2.61	0.81	0.0	3	21	5	4	s.	H. C. Warmoth.
Liberty Hill	Bienville	.....	23	66.4	+ 0.5	91	15	30	25	42	3.16	− 1.46	2.00	0.0	6	14	8	8	s.	Dr. E. A. Crawford.
Logansport	De Soto	192	6	.....	.....	.....	.....	.....	.....	.....	1.02	.....	0.43	0.0	4	17	5	8	s.	Mrs. Bettie M. Dennis.
Melville	St. Landry	45	21	64.3	− 4.0	90	13	32	25	45	2.35	− 2.91	1.87	0.0	1	17	5	8	se.	Chas. B. McNeill.
Minden	Webster	194	18	62.1	− 3.0	88	15†	30	25	50	2.44	− 1.07	1.12	0.0	9	16	9	5	w.	Miss Ethel Fort.
Monroe	Ouachita	82	22	65.8	− 0.4	90	4	35	25	44	1.21	− 3.23	0.60	0.0	6	20	5	5	ne.	Kenneth F. Stiles.
Morgan City	St. Mary	14	5	.....	.....	.....	.....	.....	.....	.....	0.85	.....	0.32	0.0	4	20	5	5	s.	Virgil E. Kinsey.
Newellton	Tensas	.....	3	64.6	.....	87	21	30	25	42	5.56	.....	3.63	0.0	6	12	13	5	sw.	John D. Fultz.
New Iberia	Iberia	15	20	68.0	− 0.5	86	12†	39	25	30	0.92	− 3.63	0.45	0.0	3	16	8	6	sw.	Mrs. Jno. A. Gebert.
New Orleans (1)	Orleans	51	40	68.8	+ 0.9	85	13	41	25	25	0.90	− 4.01	0.78	0.0	3	23	6	1	s.	U. S. Weather Bureau.
New Orleans (2)	....do	18	21	68.5	+ 0.2	90	13	40	25	35	1.15	− 3.76	0.75	0.0	3	12	11	7	s.	Sugar Exp. Station.
Opelousas	St. Landry	83	18	68.0	+ 0.1	92	13	33	25	42	5.03	+ 0.73	2.25	1.0	6	16	10	4	sw.	Andrew Moresi.
Plain Dealing	Bossier	268	18	63.2	− 1.0	88	29	31	25	41	5.69	+ 1.37	1.76	0.0	10	14	6	10	se.	Leon Sanders.
Rayne	Acadia	44	18	67.2	− 1.4	89	13	37	25	39	1.65	− 1.88	0.80	0.0	3	13	5	12	n.	A. P. McNeil.
Reserve‖	St. John Baptist	.....	8	62.7	.....	88	10	37	25	38	0.21	.....	0.21	0.0	1	13	16	1	.....	Leon Godchaux Co., Ltd.
Robeline	Natchitoches	147	13	63.4	− 1.0	89	13†	29	25	48	2.92	− 1.90	2.00	0.0	2	19	4	7	s	Miss Ruby McCook.
Ruston	Lincoln	312	13	64.4[a]	+ 0.3	87[a]	29	33[a]	25	36[a]	0.85	− 3.88	0.30	0.0	3	14	7	9	sw.	J. C. H. McKinney.
St. Francisville	West Feliciana	115	6	66.1	.....	88	12	34	25	39	4.07	.....	4.07	0.0	1	20	2	8	s.	L. P. Kilbourne.
Schriever	Terrebonne	17	17	67.0	− 1.2	91	13	39	20†	46	0.30	− 3.61	0.22	0.0	2	22	3	5	e.	Chas. V. Moore.
Shreveport	Caddo	249	39	64.5	− 1.3	86	29	34	25	31	1.61	− 2.97	0.86	0.0	8	15	9	6	nw.	U. S. Weather Bureau.
Simmesport	Avoyelles	.....	5	.....	.....	.....	.....	.....	.....	.....	3.71	.....	1.93	0.0	10	14	3	13	sw.	C. T. Leigh.
Southern Univ. Farm	Jefferson	.....	15	.....	.....	.....	.....	.....	.....	.....	1.04	− 3.95	1.00	0.0	3	20	10	0	se.	F. L. St. Martin.
Sugartown	Calcasieu	.....	17	63.9	− 2.9	86	13	32	25	38	2.93	− 1.23	1.63	0.0	3	5	24	1	.....	G. W. Richardson.
Tallulah	Madison	91	2	66.2[a]	.....	90[a]	15	37[a]	25	43[a]	1.39	.....	0.98	0.0	4	11	16	3	.....	C. E. Speed.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
‖ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
| Estimated by observer.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2—*Daily precipitation for April, 1910. District No. 7, Lower Mississippi Valley.*

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Colorado.																																	
Blaine	Cimarron																																
Buena Vista	Arkansas							T.			.01		.02	.02	.02																		0.07
Calhan	Big Sandy			.12							T.	.02		1.10	.36	.08						.06								T.	.08		1.82
Canon City	Arkansas										T.	T.			T.																		T.
Colorado Springs	Fountain			T.	.05						T.	.02		.55	.44	.04						.50									.06		1.66
Cripple Creek	Oil Creek			.01								T.				.37									.03						T.		0.41
Cuchara Camps	Cucharas				.24						.04		*	*	1.24	.65						.08				T.							2.25
Eads	Big Sandy													2.00								.21											2.21
Fairview	St. Charles													.97	2.04	.12						.50						.18		.17			3.98
Florence	Arkansas													.85	.15							.10											1.10
Garfield	Little Arkansas			.11				.15	.27		.09			.75	.17																.05		1.59
Glen Eyrie	Fountain			.08								.07	.15	.57	.43							.41									.07		1.78
Hamps	Big Sandy				T.							T.	T.	.98	T.	.07						.20											1.25
Hermit Lake	Grape Creek				.21		.12		.03					1.10	.59	.53						.12					.03						2.73
Hoehns (near)	Purgatoire				.25								T.	1.75	.21	.66						.30											3.17
Holly	Arkansas												.08	.95		.03						.10	.06										1.19
Lake Moraine	Fountain			.05	.12			T.			.08	.44		.61	.74	.38						.75									.08		3.25
Lamar	Arkansas										.04			1.10								.17											1.31
Las Animas	...do			.23									.74	.22	.07							.23											1.49
La Veta Pass	Cucharas			.97			T.				T.		1.28	T.	1.45																		3.70
Leadville	Arkansas			.08	.62			T.				.01	.12	.07	.23	.03	.01					.03									.04		0.64
Limon (near)	Big Sandy				T.							T.		1.43	.07	.05						.06									.09		1.70
Marshall Pass	Arkansas			.12					T.				T.	.28	.23	.17						T.											0.80
North Lake	Purgatoire				.31								.10	.95	.16	.45	.28																2.25
Pueblo	Arkansas			.03							.02	T.	.01	1.00	.19							.17								T.	T.		1.42
Rockyford (near)	...do				.06								T.	1.75	.27							.32											2.40
Saint Elmo	Chalk Creek			.08					.15				.04	.42	.09	T.																	0.78
Salida	Arkansas								.53			T.		.65	.25	T.							T.								.05		1.48
Santa Clara	Cucharas				.55			T.	T.	T.	T.	T.	.40	1.58	.16	.34	.08					.54					.06						3.71
Sheridan Lake	Arkansas										.01	T.	T.	.98								T.											0.99
Stonewall	Purgatoire				.29				T.	T.		.03	.25	.89	.13	.32	.22					T.					T.						2.13
Trinidad	...do				.20									3.00	T.	.52						.12											3.84
Victor	Oil Creek			T.	.20			T.			T.	.14	.38	.56	.12	.05						.46									.20		2.11
Vilas	Cimarron				T.						.19	T.		1.00								.13											1.32
Westcliffe	Grape Creek			.02								.05	.68			.45						.15											1.35
Winfield	Clear Creek			.02	T.		T.	T.	T.			T.	.01	.10	.08	T.						T.	T.							T.	.03		0.24
Wortman	Arkansas			.12		.24					.30	T.	.18	.19	.30	T.	T.	T.	.12		.13		T.	T.	T.					.20			1.78
New Mexico.																																	
Abbott	Canadian								*	.40			*	.30	T.	T.																	0.70
Albert	...do								*	.15		.08																					C.23
Arch (near)	Red								.70	.76			18																				1.64
Aurora	Canadian				.04					.51	.04	.04	.10	.75	.18	.05						.06											1.77
Bell Ranch	...do				.02				T.	.11	T.			T.		T.																	0.13
Black Lake	...do									.22		.04	.19	.28	.02	.14																	0.89
Cabeza	...do				T.				T.	.05	.07	T.			T.	T.																	0.12
Campana	...do									.04																							0.04
Chacon	...do							.26	.30	1.05		.13	.03	.62	.10	.06	.25																2.70
Cimarron (near)	...do				.02			.02		.16	T.	.28	.06	.85		T.	.06					T.					.09	T.		T.			1.54
Clayton	...do									*	.46	T.	.33	.06	.07																		0.92
Clovis	Red																																
Cuervo	Canadian				T.					.69	.10					.05	.02																0.86
Dawson	...do													1.40			.30																1.70
Dorsey (near)	...do				.02					.15		T.	.28		*	.08																	0.53
Elizabethtown	...do				.08			T.		.12	.13			1.03	.23																		1.59
Folsom	Cimarron				.09					T.			.10	.28	†	.71						.42					T.						1.60
Fort Union	Canadian				T.			T.	T.	1.00	T.		.45		T.	T.	.21											T.	T.				1.66
Hayden	...do																																
Johnson's Park	...do				T.								*	.25	*	.25					.04												0.54
Lake Alice	...do				.08								.14	1.73		.15						.45											2.55
Logan	...do				.09					.15																							0.24
Los Alamos	...do									.49		.75	.10			.05																	1.39
Lykins (near)	Red				T.					.44	.02				T.																		C.46
Maxwell (near)	Canadian				.07				*	.09			*	.44		.03																	0.63
Melrose	Red				T.					1.00	.12				T.																		1.12
Miami Ranch	Canadian				.10				.28					1.08		*	.18																1.64
Montoya	...do				.16					.97							.13																1.26
Nara Visa	...do				.03					.14	.14			.12																			0.43
Pasamonte	...do													.71																			0.71
Raton	...do				.20					.10		.13	T.	1.35	.11	.24						.20					.05						2.38
Rociada	...do								.07	1.17				.58		.28	.20					.03											2.33
Roy	...do				T.					.63	.04	.04	T.		T.	T.																	0.71
San Jon	...do	T.			.10			T.		.26	T.		T.	T.	T.	.10																	0.46
Solano (1)	...do							T.		.43	.06			.01		.18																	0.68
Springer	...do									.10	.10				.02																		0.22
Taylor	...do				.07					.10			.20		.04																		0.41
Trementina	...do				T.				.75	.03					T.	.05																	0.83
Tucumcari (1)	...do	T.			.09					.50	T.		T.			.17																	0.76
Valley	Cimarron																																0.24
Vermejo Park	Canadian				.12						.03	T.	.17	.55	.12	.42						T.					T.						1.41
Wagon Mound (near)	...do				T.				T.	.71		.02		.29	T.	T.	.12										T.	T.					1.14
Texas.																																	
Amarillo	Canadian				.10					.22			T.	.26	T.	.01																	0.59
Arthur City‖	Red	.10	.90	.80		.70										.30	.20																3.00
Bonham	...do	.11	1.10		.08				.20							.42		.18															2.09
Canadian	Canadian																																
Channing‖	...do																																
Childress	Red					.30					.61			.20																			1.11
Chillicothe	...do		.18							.18				1.03		.23																	1.62
Clarendon	...do		T.								.40			.90		.20																	1.50
Clarksville	...do		1.02		.32	.30		T.	.20	T.	T.	T.			.80																		2.64
Claude	...do									.52	T.			.82																			1.34
Dalhart‖	Canadian		T.		.01	.02					.30			1.04		.14	T.																1.51
Denison‖	Red	T.	.32	2.04	.02	.16				.12	T.	T.			.32		.26																3.24
Finley‖	...do		.60	.06					.94																								1.60
Henrietta‖	...do		.38													.64		.03															1.05
Hereford	...do									.55			.15	.45																			1.15
Lewis Ferry‖	...do	T.	.80	.30		2.00			.08	T.	T.						.20																3.38
Memphis	...do		.10		T.					.18	.45			.40		.10																	1.23
Miami	Canadian									.19	1.03			.64		T.																	1.86
Mobeetie‖	Red										.05	.20			.18	.03																	0.46
Nazareth	...do				T.					.68				.86		.08																	1.62
Ochiltree	Canadian										.55			.30																			0.85
Pampa‖	...do									1.15	.10			.20	.05																		1.50
Parish‖	Red	.05	1.00	.28	.12	.43				T.		T.	.20		.40	.23	.15	T.															2.86

TABLE 2.—*Daily precipitation for April, 1910. District No. 7*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Texas—Cont'd.																																	
Plemons	Canadian																																
Quanah‖	Red		T.								T.			1.05		.12																1.17
Ringo Crossing‖	do	.05	1.05		1.14											1.30																3.54
Romero	Canadian		T.		.34					.16	.12		.03	.06	T.	T.																0.73
Sherman	Red	.22	.46	.70	T.	.28			.30			.12			.95		.35															3.38
Sulphur Springs‖	do	.12	1.66	.88	T.	.90																										3.56
Texline‖	Canadian					T.					.50			1.05	.10	.10	T.															1.75
Tulia	Red	T.	.10		T.						.50	T.	T.	1.16	.12	.03																1.91
Wichita Falls	do																																
Winfield	do	.14	.92		.98				.10			T.			T.	.12							T.									2.26
Kansas.																																	
Anthony	Arkansas		T.	T.					T.		.17	.45		T.	.46	T.	T.															1.08
Ashland	Cimarron								.02		.67	.01	.10	2.05	.02																	2.87
Burlington	Neosho		.24									.06			.54								.16									1.00
Chanute	do		.36	T.	.28	.15					.05		T.		1.03	T.	T.								T.							1.87
Cimarron	Cimarron	T.						.04			.53		T.	.50		T.						T.										1.07
Coldwater	do										.46	T.		1.32																		1.78
Columbus	Neosho		T.	T.	1.80	.24			.33		.09	T.			1.26	.30	T.	T.					.01		T.	T.						4.03
Coolidge	Arkansas										.25			1.41								.15										1.81
Cottonwood Falls	Neosho		.07			.08					.01	.09	.02		.91		.01	.02					.38							T.		1.59
Council Grove	do		.10													1.10	T.					.25										1.45
Cunningham	Arkansas			T.							.05	.50		1.00			T.						T.									1.55
Dodge City	do										.40		.01	.50									.02									0.93
El Dorado	do		.04			.07				.08	.09	.40			.86	.06	T.						.10							T.		1.70
Ellinwood	do							T.			.21		.07	.83		T.																1.11
Emporia	Neosho		.19		.10						T.	T.			.52	T.	T.						.50							T.		1.31
Eureka	Verdigris		.09		.06	.05			T.		.09	T.	.09		1.04	.01	T.	T.					.27									1.70
Fall River	do		.85	T.		.12			.65		.05	.02	.40		.98	T.							.25		T.							3.32
Fargo	Cimarron									T.	T.		T.	.55	T.								T.									0.55
Fredonia	Virdigris		.15			.06			.34		.06	.03	.10		.94	T.	T.	T.					.12		T.					.03		1.83
Garden City	Arkansas										.10	T.		1.13		T.	T.					T.	.06									1.29
Great Bend‖	do											.16	05			.72																0.93
Greensburg	do										.36			.98																		1.34
Grenola	Verdigris		.06	.62		.10			.03		.26	.03	T.		1.06	T.	T.						.01									2.17
Howard	do		.21	T.	.50	.12			.08		.28		T.		.92								.10									2.21
Hugoton	Cimarron									.14	.22	.06	.04	.73		.03						T.										1.22
Hutchinson	Arkansas							.02	.02		.16				.74		.02						.02									0.98
Independence	Verdigris		.02		.27	.10			.06		.09	.06	T.		1.13	.02		T.					.01		T.							1.76
Iola	Neosho		.09	.02	T.	.17			.01		.01				.51	T.	.02	T.					.03		T.	T.				.24		1.10
Jetmore	Arkansas										.51		.28	.82		.02							T.									1.63
Kingman	do										.19		T.	T.	.48																	0.67
La Crosse	do										.30			.49																		0.79
Lakin	do										.23		.22	.98	T.		T.					T.										1.34
Larned	do										.40	T.	.23	.84									T.									1.47
Lebo	Neosho		.33	T.	.39	.12					.15	.06			.67	T.	T.	T.					.14		T.					T.		1.86
Le Roy‖	do		T.	.16	.06	.22	.06				T.				.54	T.	.01						.09		T.					T.		1.14
Liberal	Cimarron		T.							.10	.13		.39	.72	T.		T.															1.43
McPherson‖	Arkansas								.08			.07			.72								.22									1.09
Macksville‖	do										T.	.36	T.	T.	.55							T.										0.91
Madison	Verdigris		.25	.02	.03	.05					T.	.30			.83	.05	.02						.45							T.		2.00
Marion	Neosho		.04			T.		T.	T.		.10	.01	.18		.68		T.	.01					.22									1.24
Medicine Lodge	Arkansas										.24		T.	.78																		1.02
Medora‖	do							.01			.18			.70		T.																0.89
Mt. Hope	do								T.		.52				.67																	1.19
Neosho Rapids‖	Neosho		.26		T.										.70	.08	T.					.06										1.10
Ness City	Arkansas										.34		.36	.30		.10							.03									1.13
Newton	do		.04								.28	.01	.05		.58								.09									1.05
Norwich	do	T.				T.		T.			.39	.73		T.	.76		T.															1.88
Oswego	Neosho				1.00				.30		.10				.72	.27	.01								T.							2.40
Pratt	Arkansas									T.	.40			1.00																		1.40
Rome	do		.04			.15					.41	.36		.50		.14																1.60
Sedan‖	Verdigris		.10	T.			.11		T.		.05	.17			1.05		.05						T.									1.53
Toronto‖	do				.05	.15	.05		.15			.10		.20	1.30							.35			T.					T.		2.35
Ulysses‖	Cimarron									T.	T.			1.02		.06																1.08
Walnut	Neosho			.29	.66	.15	T.	T.	.23		.10	T.			.67	.12	T.	T.							T.	T.				T.		2.24
Wichita	Arkansas		.03			.08		T.	.04	T.	.31	T.	T.	.50		T.							T.									0.96
Winfield	do				.15						.37	.18	T.		.75	.06																1.51
Yates Center	Verdigris		.11	.01	.17	.09			.22		.02	T.	.22			1.10	T.	T.	T.				.49		T.							2.43
Oklahoma.																																	
Ada	Canadian	.01	.63		.70						.28	.84			2.14	.32																4.92
Alva	Arkansas										2.20		.62																			2.82
Apache	Red	T.	.16	.08							.43	.01		.96	.29	.03																1.96
Arapaho	Washita										.15	.18		.12																		0.45
Ardmore‖	Red		.03	.77		.33				.15	T.	.27			1.40		.15															3.10
Bartlesville	Arkansas				.09	.10			T.	.35	.33				1.54	.06																2.47
Beaver	Canadian		.10						.10	.95	.30		T.		1.06		T.																2.51
Blackburn	Arkansas					.18					2.48	2.60			1.08	.09																6.43
Cache	Red		.40									.40			.48	.08	.34															1.70
Calvin	Canadian	.02	.48	.37		.65					.06	.23			1.94		.06															3.81
Chandler‖	do		.02	.13						T.		3.15			1.36		.06															4.72
Chattanooga	Red		.38		T.						.33			1.55		.20																2.46
Chickasha	Washita	.23	T.								.10			2.92	.36																	3.61
Cloud Chief	do		T.								T.																					T.
Dacoma	Cimarron										.96			.49																		1.45
Durant‖	Red	T.	.20	1.55	T.	.25				.02					.61		.31	T.														2.94
Eldorado	do	.15			T.					.17					.26	.09	.10															0.77
El Reno	Canadian										.36	.82		.08	.55	.16																1.97
Enid	Cimarron											.56			.94	.11																1.61
Erick	Red	.02	.04	T.						.35	.16	T.		1.34		.18	T.																2.09
Fairland	Arkansas		T.	T.	.70	.25			.27		.10	.37		.65	.20										T.								2.54
Fort Gibson	do		.03	T.		.77	.04					.98	.68		1.66	.15	.90			T.												5.21
Frederick	Red		.11							T.	.12			.53		.25																1.01
Gage	Canadian									.90		.20	T.	.10																			1.20
Goodwell	do									.44	.64			.75																			1.83
Guthrie	Cimarron			T.							.36	1.07		T.	1.57	.16																	4.06
Guymon	Canadian																																
Harrington	Red									1.10	.70	1.30				.10																	3.20
Hartshorne	Canadian		.90	.05								1.15			.55																		2.65
Healdton	Red	T.	1.63		.29				.41		1.25	.63		.33		.05																	4.59
Helena	Cimarron		T.		T.						.49			.12	.22	.21																	1.04
Hennessey	do		T.							T.	.40	.07		.15	.23																		0.85
Hobart	Red	T.	.06								.04	T.		.29		.05																	0.44
Holdenville‖	Canadian				.42		.93				T.	.55			2.05		.38																	4.33
Hooker	do	T.	T.					T.		.62	.20		.27			.02	T.																	1.11

TABLE 2.—*Daily precipitation for April, 1910. District No. 7*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Oklahoma—Cont'd.																																	
Hurley	Canadian											T.	T.	.75	T.	T.																	0.75
Idabel	Red	.70	.90		.09				1.09			.50				.30																	3.58
Jefferson	Arkansas										.42	.08		1.42		.14																	2.06
Kenton	Cimarron				T.					.06	.03		.08	.50	.02	T.																	0.69
Kingfisher	...do		T.						T.		.35	.43		.51		T.																	1.29
McAlester	Canadian	T.	.71	T.	1.10				.06		.08	.29			1.10			.26															3.60
McComb	...do		T.								.55			1.95																			2.50
Mangum‖	Red		.08								.62				.28	.09																	1.07
Marlow‖	Washita		.38	.07							.09				3.50		.06																4.10
Meeker	Canadian																																
Muskogee	Arkansas				.65						.30	1.34			1.58	.42																	4.29
Mutual	Canadian										.95			.94																			1.89
Neola	Washita		.16	T.						T.	.32	.11		.66		.18																	1.43
Newkirk	Arkansas		T.	T.	T.	.19					.30				.70																		1.19
Norman	Canadian																																
Oakwood	...do										.55			.32		.11																	0.98
Okesne	Cimarron		T.			T.				T.	.81	.02		1.04	.05	.19																	2.11
Oklahoma	Canadian	T.	.07	T.	T.				T.		.34	.02		3.75		.13																	4.31
Okmulgee	...do		.02		.40						T.	1.42			1.40	.33																	3.57
Pauls Valley	...do																																
Pawhuska	Arkansas					.13			.03		.36	.28			1.27	.06																	2.13
Perry	...do		T.	.64	T.	.13					1.67	.16			1.07	.05																	3.12
Ravia	Washita		1.05	.01	.11					.11	1.20				1.90	.48																	4.86
Sac & Fox Agency	Canadian											3.01			1.55		.15																4.71
Shawnee‖	...do		.09	.09		T.				T.	.26	.26			2.97		.15																3.82
Snyder	Red		.08											.31		.20																	0.59
Stillwater‖	Cimarron				T.	.12	T.					1.26	T.		1.63		.12																	3.13
Supply	Canadian										1.55		.50	1.67																				3.12
Tulsa (1)‖	Arkansas			.08	.27		.03					1.66			1.18		.40								T.								3.62
Vinita	...do		T.		1.50	.15					T.	.55			.75	.38	.10																3.43
Wagoner	...do		.03		.95	T.						1.22			1.05		.18																3.43
Waukomis	Cimarron		T.							T.	.36	.02		.07		.40																	0.85
Waurika	Red		.77		T.						T.	.09			.16	.05																	1.07
Weatherford‖	Canadian										.14	.38			.23																			0.76
Webbers Falls	Arkansas		.20		.90						.25	1.33			1.00	.22		.06																3.96
Whiteagle	...do					.19					.42	.01			.75																			1.37
Woodward	Canadian									.02	1.16		.30	.49		T.																	1.97
Missouri.																																	
Belle	Meramec		T.	.35	.08		T.					.67			.04	.38	.20								.12	.05	.31						2.20
Birchtree	Black		.10		.60	1.70					.05				1.51	.53	1.25								T.								5.74
Cape Girardeau‖	Mississippi				.52	.60	.30					.26	.01			.56	.94	.60		.10					T.	.01	.30	.20					4.40
Caruthersville	...do		T.	.90	T.	.75			T.			T.	1.08		.35	1.71	.95	.05	T.	T.			T.		.16	.13	.18					6.26
Dean	Neosho																																
Doniphan	Black		T.	.55	1.00	1.01					2.20	.18		.15	.32	.94									T.		.25						6.60
Farmington	Mississippi			.50	.50	.10						.50	.25			.75			.25	T.			.12	.07	T.		.25						3.29
Gano	Meramec		.30	.10	.11	.55	.05					.31	.04		.43	.19	.45	.11	.06				.06		T.	.02	.20						2.98
Goodland	Black		.44	.10	1.42							.25	.22				3.50	.07					.22		.08		.36						6.66
Greenville	Mississippi		T.	T.	.47	.73						.08	.15		.71	.45	1.54	T.	T.	T.			T.		T.		.34						4.47
Hollister	White					.75									.15		.40																1.30
Ironton‖	Mississippi			.15	.20	1.10	.10					T.	.22	T.		.30	.63	.45	.05	.02				.04	.15	.10	.15	.15					3.81
Jackson	...do	.08	.94	.44								.19			.78	.92	.35		.06			.02	.01	.03	.24		.20						4.26
Joplin	Neosho		T.	T.	1.40	.40					.45	T.	T.		.61	.50	.06	.05	T.	.05			T.		.05								3.57
Koshkonong	Black	T.	T.	.30	.70	.98	T.		T.		.02	1.52	T.		1.34	.50	.88	T.					T.		T.		.09						6.33
Lamar‖	Neosho		.21	.06		1.67	.34					.22	.54		.13	1.11	.12	T.						T.	T.	T.	.21						4.61
Marble Hill	Mississippi			.15	.50							.80				.76	1.30								T.		.40						3.91
Mountaingrove	White	.03	.03	.25	.20	.78				.18	.05	.03	.40		.10	.10	.38	T.	T.				T.		T.	.19	T.						2.72
Mount Vernon	Neosho																																
Neosho	...do		T.	.06	.70	.50			.30		.05	T.		T.	.63	.26	.08	.02							T.	.13							2.73
New Madrid‖	Mississippi			.07	.86	.60	.06						1.25			1.08	.35	.13	.04		T.		T.	.07	.05	.27	T.	.20					5.03
Oakfield	Meramec		.02	.18	.20	.67	.05					.39			.02	.40	.45	.14	.14	.10			.20	.03	.19		.26						3.44
Olden	White			.50	.87	.80					.08	.16			.50	.76	.49								T.								4.10
Perryville	Mississippi			.10	.10	.40							.10			1.05	.65		.05				.05				.30						2.75
Rolla	Meramec		.02	.06	.05	.40	.03					.27	.03		.04	.69	.30	.18	.04				.10	T.	.05	.02	.22						2.50
Sikeston	Mississippi			.53	.45	.56						.12	1.38			.92	1.52	T.	T.				.07				.55						6.10
Springfield	White		T.	.23	.47	.51					.20	.09			.41	.42	.01	.02	T.				.02		.02	.12							2.52
Steelville	Meramec																																
Willow Springs	White																																
Kentucky.																																	
Blandville	Mississippi			.37	.03	.66	.06					.16	1.66		.06	1.15	2.53	.07	.09	T.			.11	T.	.34	.46	.31						8.06
Lynnville	...do		T.	.47	T.	.37	T.					.03	.59		T.	2.05	.48	.04	.10	.11		.01	.22	T.	.66	.23	.07	.02					5.45
Tennessee.																																	
Arlington‖	Mississippi			.48	T.	.50							.15			4.19	.20	.40	T.					T.	T.	.10		.15					6.17
Bolivar‖	...do			.33		.72							.20			5.11	.80	.48			.02				.15								7.81
Brownsville‖	...do	T.		T.	T.	.81	T.						.44	T.	4.70	T.	T.				T.			T.		.20		.16				6.55
Covington‖	...do	.04		.24	.03	.60							.16			3.50	.24	.26								.11	.08	.15					5.41
Dyersburg‖	...do			.65	.10	.70						T.	.30		.30	2.40	.47		T.						T.								4.92
Jackson	...do			.40		.70					.20	.14	.43			2.70	.50			.02	.02		.05		T.	.07	.05						5.28
Kenton	...do	T.	T.	.27	T.	.78						.13	1.41		.16	2.23	.64	.01	.06	T.	.07		.03		.10	.37	.10						6.36
Memphis	do		.41	T.	.52	.09					T.	.09	.58		2.30	2.65	.17						T.		.01	.03	.10						6.95
Milan‖	...do	.10	T.	T.	T.	.25	.25						.72	.02		4.13	.35	.20	T.	T.	.03			.10	T.	.12	.04	.10					6.41
Trenton	...do		T.	.32		.71						.10	.24			2.65	.78								T.	T.	.22						5.02
Union City	...do			.90		.85						.11	1.05		1.87		.92	.02	.07			.15		.18	.64	.08						6.84
Arkansas.																																	
Alicia	White				.80	.50						T.	2.10				1.20								T.								4.60
Amity	Ouachita	.01	.96	.06	1.48	.43			.05		.03	1.68	.51		.03	.04	.28								T.	T.							5.56
Arkadelphia (near)	...do		.88		1.60				.09					.64		.32	.29	.84									T.						4.66
Arkansas City‖	Mississippi			.06		1.02					.10	.40	1.12	.10		1.85	.50	.10															5.25
Batesville (2)‖	White	T.		1.04	.66	1.16	.02					.54	.24	.01		.28	.74	.24								.01		T.					4.94
Bee Branch	Arkansas		.25	.90		1.30						.75	.10		T.		.80																4.10
Benton	Ouachita		.80		1.40			.10			1.85			.60		.70	.70									.14							6.29
Bentonville	Arkansas		T.	.20	.76	.11			.35		.04	.16			.52	.21	.01								.02	.18							2.56
Bergman	White																																
Black Rock‖	...do			.54	1.22	.89	.12					.60	.59	.48		.24	1.20	.19								.03		.10					6.20
Brinkley‖	...do			.85	.09	1.31	T.					.13	1.01			1.91	.76	.30								T.		T.					6.36
Calico Rock‖	...do			.30	1.00	1.20	.20		T.			T.	.08			2.96	.50	.20							T.								6.44
Camden‖	Ouachita	.04	.10	.36	.10	1.62			.14	.18	.04	.68	1.34			2.98	.16	.12									.02							7.88
Centerpoint	Red	1.05	.20		1.50				.48		T.	.25				.75									T.	T.							4.48
Clarendon‖	White	.01	T.	.82	.12	1.16						.05	.94			1.77	.51	.21						.04		.01		.03					5.67
Conway	Arkansas		.77	1.83	.84	.04			.14		T.	1.66	.13		.08	T.	.67						T.		T.	.03							6.19
Corning	White		T.	.94	2.35	1.40	.01		T.			.09	1.20		T.	.30	1.19	T.	T.	T.			.01		.03		.28						7.80
Dardanelle‖	Arkansas		.02	1.12	.60	.93						.65	.74			.21	.68								T.		.08						5.03
Dennard	White																																
Dodd City	...do					.80			.07			.77			.40		.80								*	.21							3.05
Dutton	...do		.05	.22	T.	.80			.47		.30	.40			.81		.10								T.	.02							3.17

TABLE 2.—*Daily precipitation for April, 1910. District No. 7*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Arkansas—Cont'd.																																	
Earl	St. Francis			.37	.05							1.22	.24		1.66	.91	.07								T.		.32						4.84
Eldorado	Ouachita	.02	.04		.03	1.78			.19	.40	.05	.70	.13			.67	.29	.10															3.80
England	Arkansas	T.	T.	.75	.10	1.50	T.			.02	.40	1.10		T.	1.10	1.00	.20							T.			T.	T.					6.17
Eureka Springs	White		T.	T.	T.	.45			.30		T.	.25			.55	.48									T.	.02							2.05
Fayetteville	do		.03	.17	.22	.84			.65		.02	.79			.65		.36								T.	.15							3.88
Fort Smith	Arkansas		.21	.14	.83				.04		.09	.53			.20	.12	.06								T.	T.							2.22
Fulton	Red	1.04	.12	.18	1.88				.08	.62			.60		.26	.50																	5.28
Hardy	White		T.	.36	1.50	.71			T.		.03	.45	.06		.45	.15	1.10		.02						T.		.11						4.94
Helena (2)	Mississippi			.72	.06	.60						T.	.40			2.86	.52	.26					.06			.02		T.					5.50
Hot Springs	Ouachita	.05	.68	.02	1.06	.74			.23			1.10	.48		.22	.08	.44								T.								5.11
Huttig	do		T.			1.10			.27			.27	.71			.66	.52						T.			T.							3.53
Jonesboro	White			.45		1.78					T.	.28	.20		.18	.28								T.		.30						3.47
Junction	Ouachita		T.	T.	2.03				.21		.14				.20		.30									T.							2.88
Lake Farm	Arkansas		.50	.21	1.04						.31	.95			2.03	1.02									T.	.01							6.07
Lewisville	Red		.07	.48	1.43	.24		T.	1.16	T.		1.30	.05		2.00	.40	.20						T.		T.	T.							7.33
Little Rock	Arkansas	.01	.60	.05	1.53	T.			.02		T.	2.35			.44	.36	.34								T.	.03	T.						5.73
Lutherville	do		.28		1.95	.78			.08			.65			1.39	.27	.04								T.	.10							5.54
McNeil	Ouachita																																
Malvern	do	T.	.20	.30	.37	1.13			.13	T.	.15	1.78	.30			.87	.40	.10										.17					5.90
Mammoth Spring	White			.15	.41	.70					.05	1.35			.60	.82	.74								.02		.12						4.96
Marked Tree	St. Francis			.85		.74					.26	.22				1.75	1.75	.08								.04	.05						5.74
Mena	Ouachita																																
Mossville	White		T.	.48	1.00	.89			1.07		T.	.91			.44	.56									T.	T.							5.44
Mount Nebo	Arkansas		.10						1.80		.05	.18			.40	.25									T.	T.							2.78
Newport (1)	White		.02	.72	.54	.88						.57	.06			.53	.93	.20										.12					4.57
Ozark	Arkansas	T.	.15	.23	.90	.21			.30		.04	.59			.53	.37									T.	.04							3.36
Pine Bluff	do	T.		.76	1.10	1.14					.04	.30	.80			3.90	.46	.24						T.									8.74
Pocahontas	White			1.08	2.04	.63						16	2.20		.20	.30	1.60										.25						8.46
Pond	Arkansas		.05	.09	1.60	.29			.38		.07	.26			.59	T.	.33								T.	.08							3.83
Portland	Ouachita																																
Prescott	do	.02	.80	1.48	.13	2.08			.06	.25	.02		1.22			.54	.60																7.20
Rogers	Arkansas		.06	10.	.55	.10			.30		.05	.85			.50		.44								T.	.30							3.15
Spielerville	do		.20	T.	1.65	.17			.06		T.	1.05			1.01		.29									T.							4.43
Springbank	Red	.03	T.	T.	.71	2.05			.27	.63	.03	.17				1.87	.75	.02						T.									6.53
Stuttgart	Arkansas	T.	.85	.08	.27	.96					.02	.33	.81		1.22	55	1.11						.02		T.								6.22
Texarkana	Red	.07	.48	.17	.20	1.87			.30	.98	.02	.08	.02			.23	.25																4.67
Warren	Ouachita			.17		1.33					.08	.19	.82			1.62	1.44	.10									.06						5.81
Whitecliffs	Red	.03	1.25	.33	T.	1.65			.25	.75	T.		.25			.02	.56						T.				T.						5.09
Wiggs	Ouachita	T.	.36	.06	2.07	.46			.16			1.34	.43		.06	T.	.28								T.	T.							5.82
Wynne	St. Francis			1.00	.09	.77	T.					.35	.62			1.78	1.45	.19						.02		.02		.12					6.41
Mississippi																																	
Anguilla	Yazoo					.24						.25	.07		T.		1.41						T.		T.								1.97
Austin	do		.80	.22		1.35						.09	.39		.08	2.28	.93						T.		T.	T.	.13						6.27
Batesville	do		.20			.90							.20			2.50	.70	.30						.30		.12							5.22
Byhalia	do		.38	.13	T.	.73						T.	.42		.27	5.12	.66	T.					.07		.05	.16	.06						8.05
Canton	Big Black	.16				.32						.05	.04			.26	2.30						.17		.01	T.							3.31
Clarksdale	Yazoo			.70		.72							.38			1.40	.50	.16						.05		.02		.02					3.95
Coffeeville	do		.25		T.	.50						.19	.03		.18	1.93	1.32								.03	.05							4.48
Corinth	Mississippi	.10		T.		.44	.02						.10	.10		2.34	.30	.30				.02		.18		.06	.02	.04					4.02
Crenshaw	Yazoo		.48	.54	.02	1.10					T.	.02	.18		.16	1.75	.70						.12		.02	.03	.03						5.15
Denmark	do		.40			.52									.15	2.00	1.40								.15	.18							4.80
Duck Hill	do		.16			.88					T.	.28			.12	T.	1.42						.12		T.	.08							3.06
Edwards	Big Black	.35				.66					T.	.12	.04			.15	3.74						.10		T.								5.16
Enid	Yazoo		T.	.20		.91					T.	.06	.15		.04	2.50	1.17						.02		01	T.	.03						5.09
Fayette	Mississippi	.21			.15	.53					T.	T.					3.08																3.97
Greenville	Yazoo			.02		.90					.07	.22	.83	T.		.41	.51	.10								T.							3.06
Greenwood	do	.15		.45		.54						T.	.52			.06	1.73	.29								.06							3.80
Grenada	do	T.	.36			.44					T.	.35	.56	T.		1.68	1.51						.12		T.	.05							5.07
Hernando	do			.85		.60						T.	.30	.30		5.16	.30	.55							.20		.10		.10			8.46
Hickory Flat	do		.13			.50							.05		.78	1.98	1.07						.34		.05	.15	.03						5.08
Holly Springs	do			.31	.02	.95	.05					.01	.09	.04		1.77	.74	.50							.15		.18	.05	.05					4.91
Kosciusko	Big Black		T.	.35	.01	.35							.15	.35		.50	1.10	.25									.05	.01					3.12
Lake Coromrant	Yazoo		1.18	.04	T.	.92						.07	.38		.40	4.12	.55	.01					T.		.02	.02	.04						7.75
Lula	do		.60	.05		1.45						T.	.30		.10	1.55	.84						.08		T.	T.	.05						5.02
Malone	do				1.10										1.85	.80	.40						.40		T.								4.55
Marks	do																																
Natches	Mississippi		T.	T.	T.	.48			T.	T.			.13	T.		.21	2.83	.06						T.		T.							3.71
New Albany	Yazoo		.17			.61									10	1.80	1.13						.12		T.	.19	T.						4.12
Pontotoc	do		T.		T.	.47					T.	T.				1.27	1.02						T.		.15	.05							2.97
Port Gibson	Mississippi		.50			.75			T.	T.	T.		.12			.07	4.48							T.		.04							5.96
Ripley	Yazoo																																
Rosedale	do			1.15		.95						2.00	.75	.10		2.00	.50	.15															7.60
Senatobia	do	T.	.75	.47	.01	.41						.02	.18	.11	.68	3.01	1.19						.06		T.	.10	.03	.01					7.03
Shoccoe	Big Black	T.			T.	.17					T.	.04				11	3.30								T.	T.							3.62
Suffolk	Mississippi	.51	T.		T.	.19			T.		.01	T.				.92	1.49						.62		.01								3.15
Swan Lake	Yazoo		.10			.86					T.		1.46			2.50	.60								T.	.20							5.72
Tchula	do			.40		.48					T.	.40	.05		T.		1.70						.20		T.								3.23
University	do		.10		.85							T.			.25	2.25	1.40	T.							T.	.10	T.						4.95
Utica	Mississippi	.05			.03	.30			T.		.01	.13				2.75	.82						.04		T.								4.13
Vicksburg	do	T.		T.	.28	.12			T.		T.	.10	.04			2.10	1.33						T.		T.	T.							3.97
Water Valley	Yazoo	T.	.10		.65							.08	T.	T.	.70	1.70	.70						T.		T.	T.							3.93
Woodville	Mississippi		.05	.06	.20	.34										.07	4.95																3.67
Yazoo City	Yazoo			.10		.36				T.	T.		.20			T.	2.22	.35						T.		.04							3.27
Louisiana.																																	
Abbeville	Coast					.27											1.35																1.62
Alexandria	Red					.91							20	1.20			1.70	.06															4.07
Amite	Coast	T.		T.		1.40			T.	T.			T.		T.	T.	2.30	T.															3.70
Baton Rouge	do	.05	.24	.34		.11											.24	.12															1.10
Burnside	do		.35		T.	.16											.20																0.71
Burrwood	do									T.							.48								T.								0.48
Calhoun	Ouachita			.05	.45	.65			.13			.18			.05	.06	.34																1.91
Cameron	Coast				.25	.82	T.			T.						T.																	1.07
Cheneyville	Red					.85					.02					.23	3.20																4.30
Clinton	Coast	T.	T.	.43		.02			T.		T.						1.70	.07															2.22
Collinston	Ouachita																																
Covington	Coast	.12				.41				T.	T.	T.						.04															0.57
Dodson	Red				.75										1.24																		1.99
Donaldsonville	Coast	.75				.35											T.							.03									1.13
Farmerville	Ouachita					1.08		.18	.12	.08	.15	.21				.27																	2.09
Ferriday	do					.46						.10					4.00																4.56
Franklin	Coast	T.		T.		.15						T.	T.			T.	.10	T.															0.25
Grand Cane	Red				.82							.05	.54				.30																1.71
Grand Coteau	Coast	.02	1.65			.42				.02	T.	T.			T.	.08	.75																2.89
Hammond	do		T.			.15							T.																				0.15

TABLE 2.—*Daily precipitation for April, 1910. District No. 7*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Louisiana—Cont'd.																																	
Houma	Coast																																
Jennings	do		.12			.80							.03			.03	.19															1.17
Lafayette	do	.06	.73	.02		.28						T.				.03	.57	.08						.01									1.78
Lake Charles	do					.71											.14																0.85
Lakeside	do				.12	.53																											0.65
Lawrence	do					.43							.17					.81															1.41
Liberty Hill	Red			.15	2.00							.24	.20		.27	.30																	3.16
Logansport	Sabine					.15				.14	T.		.30			.43																	1.02
Melville	Red	T.		.12		.32				.04	T.		T.			T.	1.80	.07															2.35
Minden	do		T.		T.	1.12			.17	.06	.08	.11	.54			.04	.15	.17															2.44
Monroe	Ouachita			T.	.02	.66			.06		T.	.10	.06			T.	.37																1.21
Morgan City	Coast	.25		.32		.26																	.62										0.85
Newellton	Mississippi	.46			.37	.85						.12			T.	.13	3.63						T.			T.							5.56
New Iberia	Coast		T.	T.	.45					T.	T.	T.				.10	.37							T.									0.92
New Orleans (1)	do	T.			T.	.09				T.					T.	T.	.78							.03			T.						0.90
New Orleans (2)	do					.22											.75							.18									1.15
New Orleans (3)	do				.10	.08											1.08							.02									1.28
New Orleans (4)	do				.11	.09											.70							.18									1.08
New Orleans (5)	do				.10	.08											.67							.13									0.98
New Orleans (6)	do					.10											.75							.03									0.88
New Orleans (7)	do					.14											.74																0.88
New Orleans (8)	do					.15											.92																1.07
Opelousas	do		.21	2.25		.93				.50						.35	.79																5.03
Plain Dealing	Red		.02	.01	1.14				.98	.12		.13	.55		1.76	.15	.83																5.69
Rayne	Coast	T.		.25		.80										T.	.60																1.65
Reserve	do																																
Robeline	Red					.92											2.00																2.92
Ruston	Ouachita				T.	.30										.30	.25																0.85
St. Francisville	Mississippi			T.												4.07																	4.07
Schriever	Coast	.22	T.													T.	.08							T.				T.					0.30
Shreveport	Red		.01	T.	.86				.10	.02	T.	.28			.06	.22	.06																1.61
Simmesport	do		.06	.39		.99			.02		.01		.06	.03		.20	1.93	.02															3.71
Southern Univ. Farm.	Coast					.03											1.00							.01									1.04
Sugartown	Red				.62	1.01										1.30																	2.93
Tallulah	Mississippi				.08	.15						.18					.98																	1.39

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 7, Lower Mississippi Valley.*

Date.	Colorado.						New Mexico.				Texas.				Kansas.										Oklahoma			
	Lamar.		Leadville.		Pueblo.		Albert.		Cimarron.		Amarillo.		Paris. ‡‡		Dodge City.		Ellinwood.		Iola.		Liberal.		Wichita.		Ardmore. ‡‡		Bartlesville.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	74	22	45	19	65	27	67	34	61	23	66	40	74	50	72	37	77	31	75	43	74	28	73	43	71	45	76	45
2...	80	31	44	22	72	34	75	38	69	20	76	46	70	55	79	50	79	45	71	49	82	43	70	52	72	51	74	55
3...	80	42	36	14	69	33	75	50	66	33	78	45	76	59	82	46	85	54	80	57	82	40	83	59	76	56	85	60
4...	70	35	25	7	50	30	71	35	60	25	58	33	71	64	58	39	79	45	76	50	77	37	69	42	74	65	74	48
5...	68	25	46	11	63	22	67	29	62	20	66	30	62	46	64	33	65	37	61	37	74	27	62	37	68	43	66	42
6...	78	30	45	21	71	29	72	35	61	30	70	40	77	43	77	30	77	28	72	37	79	34	73	37	76	41	75	37
7...	80	40	47	21	66	47	72	41	62	37	79	41	77	44	77	51	78	51	78	45	83	37	80	55	76	48	71	45
8...	80	42	49	23	68	38	71	46	62	42	74	45	64	53	75	43	76	45	76	55	78	41	78	55	74	52	76	52
9...	75	35	47	23	68	37	63	51	54	41	66	50	73	55	74	39	80	35	79	47	76	39	79	51	73	54	78	49
10...	65	50	50	26	68	40	74	44	67	33	74	45	77	57	64	53	69	48	74	50	70	50	64	54	73	55	74	60
11...	79	38	49	22	70	47	77	46	65	38	79	48	82	60	73	46	75	50	72	50	80	45	70	54	80	57	73	51
12...	75	42	48	29	68	41	73	46	61	41	76	50	84	55	76	49	78	49	72	51	77	43	75	51	82	52	71	51
13...	64	48	43	29	55	41	66	51	56	37	69	48	84	56	57	51	70	53	76	52	64	52	73	52	82	55	78	53
14...	59	38	30	16	52	37	64	45	52	34	71	38	80	59	62	39	70	51	73	54	62	39	71	47	81	54	74	54
15...	50	34	22	10	45	33	53	36	39	27	44	35	76	62	51	38	52	42	56	41	60	36	51	41	60	48	56	51
16...	60	30	38	8	66	30	69	32	58	16	62	30	62	45	58	34	58	33	53	35	62	30	53	37	62	41	59	39
17...	72	38	46	21	73	36	76	41	68	34	75	40	76	43	68	31	62	34	49	35	72	37	58	37	74	48	63	41
18...	71	46	49	24	70	38	74	44	67	35	67	44	68	43	62	37	59	35	51	36	67	35	53	36	66	43	67	40
19...	79	31	59	25	74	37	80	42	72	36	78	41	62	42	71	32	67	28	60	36	76	30	63	32	66	40	64	37
20...	90	45	58	33	84	46	87	42	76	40	89	46	80	37	87	41	85	38	78	30	90	47	81	42	83	38	74	36
21...	77	37	35	25	66	40	76	47	67	42	75	40	85	44	73	43	77	61	85	56	72	42	89	54	86	56	87	54
22...	70	33	45	19	68	33	73	38	68	31	72	39	75	50	73	38	71	42	70	44	80	36	69	46	74	53	72	50
23...	72	40	51	28	71	43	75	40	70	35	74	43	68	47	67	37	63	32	56	35	68	31	60	38	67	48	64	44
24...	71	38	56	25	69	36	76	40	71	37	68	42	60	45	62	34	59	34	45	33	71	39	50	36	56	42	46	42
25...	72	31	59	27	68	38	75	38	69	35	71	37	68	33	68	32	66	29	47	34	73	42	63	34	69	32	63	36
26...	76	33	58	26	72	41	80	57	71	40	80	46	77	35	75	33	75	31	74	32	80	60	73	39	78	36	72	34
27...	89	43	62	29	84	43	81	45	78	39	82	48	86	40	80	42	84	36	84	47	85	40	82	47	86	45	84	44
28...	95	45	61	39	88	52	92	60	81	42	92	55	89	50	95	58	95	55	88	52	97	54	90	58	89	50	88	50
29...	84	54	56	36	74	59	89	56	74	42	94	59	88	52	89	63	95	65	92	64	94	50	96	65	90	57	92	55
30...	79	46	45	28	67	46	78	48	76	35	80	50	85	57	73	51	79	53	78	59	85	40	78	62	85	60	85	61
31...																												
Mns	74.5	37.9	46.8	22.9	68.1	38.5	74.0	43.2	65.4	34.0	73.5	43.1	75.2	49.4	71.4	41.7	73.5	42.3	70.0	44.9	76.3	40.1	71.0	46.4	75.0	48.8	72.7	47.2

Date.	Oklahoma.														Missouri.													
	Enid ‡‡		McAlester.		Mangum. ‡‡		Muskogee.		Oklahoma.		Weatherford. ‡‡		Woodward.		Carutheraville.		Ironton. ‡‡		Lamar. ‡‡		Olden.		Springfield.		Lynnville, Ky.		Jackson, Tenn.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	78	39	73	52	75	33	74	46	72	50	78	41	74	34	71	50	74	33	73	43	70	46	68	49	72	49	74	48
2...	77	45	69	57	76	46	68	58	70	55	82	49	80	50	76	44	73	40	72	47	70	52	68	55	76	42	80	49
3...	87	54	75	60	85	55	78	58	80	59	87	53	95	62	77	57	74	57	75	52	70	55	71	55	71	57	79	58
4...	71	52	74	54	68	45	72	56	69	52	71	49	75	47	81	62	73	56	73	58	70	55	70	54	78	65	76	61
5...	68	44	56	45	69	.....	64	43	66	43	69	40	68	41	70	50	61	53	54	43	60	40	55	35	74	50	81	55
6...	82	31	75	41	79	.....	73	39	76	39	81	34	79	29	70	44	63	40	68	35	64	38	61	38	59	45	65	41
7...	84	38	78	50	78	36	81	50	78	57	80	36	78	53	76	38	72	29	78	37	72	40	72	44	70	34	68	37
8...	80	51	71	60	79	49	73	57	77	58	76	55	79	40	83	44	80	40	74	49	73	48	68	54	79	40	73	46
9...	81	53	76	56	74	52	77	53	74	51	76	56	75	40	87	50	82	43	78	48	80	50	76	52	84	45	78	51
10...	78	57	75	59	75	55	70	58	76	58	77	56	72	55	84	54	81	43	75	50	76	52	72	55	83	53	75	53
11...	75	56	80	61	80	49	75	57	69	59	72	52	72	50	72	56	68	53	71	56	65	54	65	55	72	57	83	54
12...	80	51	81	54	80	48	76	67	77	54	81	51	79	49	72	59	58	58	67	54	69	55	66	52	70	59	78	59
13...	79	53	83	57	70	50	77	55	79	56	73	52	68	54	74	54	73	40	74	50	74	46	72	48	74	51	72	49
14...	74	56	80	55	74	47	80	56	74	53	75	53	69	51	83	52	80	47	75	52	75	53	73	53	80	53	79	47
15...	58	44	77	51	52	44	70	49	53	45	56	44	58	40	83	61	74	58	64	48	70	53	65	46	80	60	76	51
16...	62	37	63	43	61	35	60	42	59	40	66	35	62	35	73	48	48	48	52	35	61	37	46	35	73	47	76	42
17...	76	36	69	44	78	.....	65	43	67	40	75	37	72	35	69	39	52	30	49	35	52	38	46	34	64	38	62	44
18...	64	39	67	41	70	50	61	40	62	40	61	38	66	38	53	41	42	32	50	35	47	35	43	33	51	36	47	43
19...	68	36	58	41	71	39	57	38	63	37	72	34	70	32	63	42	55	37	55	35	55	37	45	34	55	38	57	42
20...	86	37	79	38	88	36	75	36	80	44	88	36	88	39	68	42	67	39	71	32	68	31	67	34	68	39	58	40
21...	91	47	86	57	91	38	85	54	86	58	93	65	85	59	81	39	78	31	84	36	77	41	83	52	75	38	74	40
22...	79	53	82	54	76	55	73	51	71	52	76	45	75	40	75	46	71	56	67	50	73	49	67	44	70	51	73	55
23...	68	42	73	44	75	43	66	40	66	45	72	45	70	41	56	42	44	33	55	35	57	35	49	34	52	40	63	45
24...	59	39	64	43	81	41	53	40	57	37	63	41	64	39	45	32	39	28	43	32	46	29	34	28	40	31	52	34
25...	70	33	65	34	73	35	58	33	66	35	72	32	70	32	57	32	47	28	42	33	48	27	39	29	54	32	61	32
26...	78	36	77	34	81	35	75	31	75	39	81	32	77	31	48	34	51	35	69	32	51	35	58	33	47	35	52	35
27...	87	45	83	44	86	39	81	44	82	49	87	38	84	38	74	43	73	37	79	35	76	39	75	45	67	42	50	40
28...	92	51	88	63	94	49	86	49	89	55	92	46	94	56	79	41	82	38	84	50	80	49	82	54	73	38	75	48
29...	94	59	89	65	95	55	87	58	89	65	94	51	95	59	90	51	88	54	88	53	86	57	85	60	83	54	80	58
30...	95	65	87	62	89	50	81	61	84	65	89	63	85	58	84	59	86	60	88	58	84	58	84	61	81	62	83	60
31...																												
Mns	77.4	46.0	75.1	50.6	77.7	44.8*	72.4	48.7	72.9	49.7	77.2	45.3	75.9	44.4	72.4	46.9	67.0	42.5	68.2	43.6	67.3	44.5	64.2	45.2	69.2	46.0	70.0	47.2

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 7*—Continued.

Date.	Tennessee.				Arkansas.								Mississippi.							
	Memphis.		Union City		Bentonville.		Corning.		Dardanelle. ‖		Eldorado. ‖		Fort Smith.		Little Rock.		Pine Bluff. ‖		Texarkana. ‖	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	70	52	73	52	70	52	75	47	75	52	82	56	74	54	75	57	76	46	76	52
2	72	54	74	52	72	54	74	46	72	54	86	58	84	56	82	56	82	48	82	54
3	82	60	82	56	82	56	73	56	82	56	88	62	86	58	86	58	86	56	86	58
4	86	64	86	58	86	58	78	58	86	58	88	64	88	60	88	60	88	58	88	60
5	88	68	88	60	88	60	82	60	88	60	88	66	88	62	88	62	88	60	88	62
6	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
7	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
8	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
9	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
10	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
11	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
12	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
13	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
14	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
15	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
16	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
17	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
18	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
19	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
20	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
21	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
22	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
23	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
24	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
25	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
26	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
27	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
28	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
29	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
30	88	68	88	62	88	62	84	62	88	62	88	66	88	64	88	64	88	62	88	64
Mns	68.5	51.6	71.0	47.3	66.9	45.7	70.9	48.2	71.6	47.1	73.8	51.0	70.2	49.7	69.7	51.0	73.7	48.2	72.9	52.0

Date.	Mississippi.																			
	Clarksdale. ‖		Corinth. ‖		Greenville. ‖		Kosciusko. ‖		Natchez. ‖		Vicksburg.		Alexandria. ‖		Baton Rouge. ‖		Covington. ‖		Lafayette. ‖	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	76	52	76	52	76	52	76	52	80	52	80	52	82	56	84	58	84	58	86	58
2	82	54	82	54	82	54	82	54	82	54	82	54	86	58	86	58	86	58	88	58
3	86	58	86	58	86	58	86	58	86	58	86	58	88	62	88	62	88	62	88	62
4	88	60	88	60	88	60	88	60	88	60	88	60	88	64	88	64	88	64	88	64
5	88	62	88	62	88	62	88	62	88	62	88	62	88	66	88	66	88	66	88	66
6	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
7	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
8	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
9	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
10	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
11	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
12	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
13	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
14	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
15	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
16	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
17	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
18	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
19	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
20	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
21	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
22	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
23	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
24	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
25	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
26	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
27	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
28	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
29	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
30	88	64	88	64	88	64	88	64	88	64	88	64	88	66	88	66	88	66	88	66
Mns	72.5	51.0	70.7	48.4	75.8	51.1	71.7	48.5	73.2	48.3	73.8	54.5	77.6	50.9	78.0	58.7	80.3	51.5	80.0	54.6

Date.	Louisiana.																			
	Lake Charles. ‖		Monroe. ‖		New Orleans.		Robeline. ‖		Schriever. ‖		Shreveport.									
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.								
1	86	58	86	58	86	58	86	58	86	58	86	58								
2	88	58	88	58	88	58	88	58	88	58	88	58								
3	88	62	88	62	88	62	88	62	88	62	88	62								
4	88	64	88	64	88	64	88	64	88	64	88	64								
5	88	66	88	66	88	66	88	66	88	66	88	66								
6	88	66	88	66	88	66	88	66	88	66	88	66								
7	88	66	88	66	88	66	88	66	88	66	88	66								
8	88	66	88	66	88	66	88	66	88	66	88	66								
9	88	66	88	66	88	66	88	66	88	66	88	66								
10	88	66	88	66	88	66	88	66	88	66	88	66								
11	88	66	88	66	88	66	88	66	88	66	88	66								
12	88	66	88	66	88	66	88	66	88	66	88	66								
13	88	66	88	66	88	66	88	66	88	66	88	66								
14	88	66	88	66	88	66	88	66	88	66	88	66								
15	88	66	88	66	88	66	88	66	88	66	88	66								
16	88	66	88	66	88	66	88	66	88	66	88	66								
17	88	66	88	66	88	66	88	66	88	66	88	66								
18	88	66	88	66	88	66	88	66	88	66	88	66								
19	88	66	88	66	88	66	88	66	88	66	88	66								
20	88	66	88	66	88	66	88	66	88	66	88	66								
21	88	66	88	66	88	66	88	66	88	66	88	66								
22	88	66	88	66	88	66	88	66	88	66	88	66								
23	88	66	88	66	88	66	88	66	88	66	88	66								
24	88	66	88	66	88	66	88	66	88	66	88	66								
25	88	66	88	66	88	66	88	66	88	66	88	66								
26	88	66	88	66	88	66	88	66	88	66	88	66								
27	88	66	88	66	88	66	88	66	88	66	88	66								
28	88	66	88	66	88	66	88	66	88	66	88	66								
29	88	66	88	66	88	66	88	66	88	66	88	66								
30	88	66	88	66	88	66	88	66	88	66	88	66								
Mns	78.6	53.1	77.3	60.2	78.3	48.4	82.4	51.7	75.2	53.8										

Climatological Data for April, 1910.

DISTRICT No. 8, TEXAS AND RIO GRANDE VALLEY.

BERNARD BUNNEMEYER, District Editor.

GENERAL SUMMARY.

The climatological conditions for the district, as a whole, approximated the normal. A moderate excess of temperature occurred both in Colorado and New Mexico, and a general, though nominal deficiency, in Texas. While the precipitation was less than the normal over much the greater portion of the district, there were large areas with more than the average amounts. A conspicuous excess of 1 to 2 inches occurred in a large number of counties in the southwestern and eastern portions of Texas, but this excess was more than offset by a deficiency of 1 to 3 inches in some of the central and upper coast counties of the same State. Practically all the precipitation occurred during the first half of the month. After the 16th, the weather was fair and the sunshine excessive, with the result that the need of additional moisture became pressing in many parts of the district before the close of the month.

The greatest monthly precipitation in Texas was 7.58 inches at Crockett; in New Mexico, 2.70 inches at Harveys Upper Ranch; and in Colorado, 3.70 inches at La Veta Pass. There was practically no precipitation at 9 stations in New Mexico and 3 in Texas, while at 11 other stations, all in New Mexico, the monthly amounts did not exceed 0.10 inch.

Excessive precipitation of 2.50 inches or more in 24 consecutive hours occurred at the following Texas stations: Austin, 2.68; Beeville, 2.65; Blanco, 2.83; Crockett, 3.17; Cuero, 2.95; Del Rio, 2.52; Devine, 3.01; Dialville, 4.10; Hondo, 2.87; Huntsville, 3.25; Mexia, 2.82; Mount Blanco, 2.85; Port Lavaca, 2.73; Runge, 3.59; Sabine, 3.05; San Antonio, 2.51; Temple, 3.10; Uvalde, 2.89; and Victoria, 3.50 inches.

The heaviest monthly snowfall was 28.3 inches in Colorado and 27.8 inches in New Mexico. There was no snow in Texas, except traces in the extreme upper Brazos Valley. Thunderstorms occurred on several days during the fore part of the month and some of them were accompanied by destructive hail. The number of days with .01 inch or more of precipitation averaged 5 in Colorado and Texas, and 3 in New Mexico.

The wind movement was comparatively light, although strong winds occurred on several days, the highest reported being 44 miles per hour at several regular Weather Bureau stations.

TEMPERATURE.

The mean temperature averaged 2.6° above the normal in Colorado, and 1.1° in New Mexico, while in Texas, it was 0.7° below the normal. In general, the latter half of the month was warmer than the fore part, but it had a greater daily range of temperature on account of clear skies and active nocturnal radiation.

There were 3 cold periods during the month, namely, 3d to 6th, 13th to 17th, and 24th to 26th; but none of them covered the entire district. The first 2 were severest in the northwestern and central portions of the district, while the last was felt mostly in the eastern portion. During these cold spells freezing temperatures were recorded in many localities and tender vegetation was considerably damaged or killed altogether.

The extreme temperatures reported were: In Colorado, 80° at Saguache on the 27th, and 8° at Manassa on the 15th, and at Wagon Wheel Gap on the 16th; in New Mexico, 97° at Carlsbad on the 29th, and 2° at Hopewell on the 5th; and in Texas, 103° at Zapata on the 15th, and 26° at Barstow on the 17th. The local monthly means ranged from 37.2° to 47.8° in Colorado; from 35.8° to 64.8° in New Mexico; and from 59.4° to 76.9° in Texas.

PRECIPITATION.

The precipitation over the Rio Grande watershed in Colorado exceeded the normal by 0.14 inch. In New Mexico a slight deficiency of 0.05 inch occurred, although there were long stretches in that territory with a moderate excess. In Texas the excess averaged 0.47 inch notwithstanding a large deficiency in the upper and lower portions.

The snowfall in the mountains and upper valleys of this watershed reached a maximum depth of 28.3 inches at La Veta Pass, Colo., and of 18 inches at Red River Canyon, N. Mex. There was no snow south of Estancia, N. Mex., except traces. Compared with the preceding month, there was a considerable increase in the amount of precipitation.

A gain occurred also over the Rio Pecos watershed, notwithstanding a general deficiency which averaged 0.20 inch in New Mexico and 0.08 inch in Texas. The snowfall attained a maximum depth of 27.8 inches at Harveys Upper Ranch. There was no snow, except traces, south of Lagunita, N. Mex. A number of stations in this watershed, as well as that of the Rio Grande, had practically no precipitation.

The Texas watersheds showed a decided increase of precipitation over the amounts received during the preceding month, but there were only 3, the Nueces, San Antonio, and Guadalupe, that exceeded the normal. The other 7 had a deficiency which was most pronounced in the coastal plains and over the Brazos watershed. The following are the average monthly amounts in inches for the various watersheds: Nueces, 2.41; San Antonio, 3.49; Guadalupe, 3.64; Lavaca, 2.92; Colorado, 2.47; Brazos, 2.41; Trinity, 3.84; Neches, 3.60; Sabine, 3.12, and coastal plains, 1.97. The heaviest precipitation occurred in portions of the Trinity Valley, with amounts ranging from 4 to 7 inches, while less than 1 inch occurred on the upper coast and in a few isolated localities in the Nueces and Brazos watersheds.

RIVER CONDITIONS.

The rivers of the district carried decidedly larger volumes of water than during the preceding month. The warm weather during April caused extensive melting of the snow in the mountains of New Mexico and Colorado early in the month, and in consequence the Rio Grande carried a large volume of water. Naturally the effect of the warm weather on the snow was first felt in the tributaries rising in the comparatively low mountains of New Mexico and soon extended northward to the high mountains of southern Colorado. In the lower reaches of the river in southern New Mexico there was a steady rise after the 9th, reaching the maximum discharge at the southern border of the Territory on the 30th, fully 30 days in advance of the usual season. At the diversion dam at Fort Selden, N. Mex., 9,000 second-feet passed on the last day of the month. At El Paso the river was only 0.5 foot below flood stage on the 30th and continued to rise slowly, attaining a maximum stage of 15.6 feet, or 0.6 foot above flood stage, on May 5, with a discharge of 12,000 second-feet. The river remained stationary until May 7 when it began to fall slowly. No damage was done by this high water to the Reclamation project and very little to other interests, the most noticeable being the loss of a few acres of alfalfa. The river was about normal in its lower portion, although rises of nearly 6 feet occurred at Eagle Pass, Tex., on the 10th, and of about 3 feet at Zapata farther below, in the beginning of the month.

Of the Texas rivers, the most pronounced increase in volume occurred in the Trinity River, whose average depth was 6.5 feet greater than during the preceding month. Sharp rises occurred in the upper portion of the river on the 9th and 10th, the crest of the high water passing Dallas on the 10th and Liberty in the lower valley on the 20th. At the former place the high-water mark was within 2.3 feet of the flood stage, and at the latter, within 4 feet.

The Brazos and Sabine averaged 3 feet higher than during March, the Colorado 2 feet, and the Guadalupe and Neches less than 2 feet.

The following has been taken from the Reclamation Record for May, 1910:

New Mexico, Carlsbad Project.—The work of maintenance and operation has been continued during the month; and from 150 to 175 second-feet of water have been delivered for irrigation through the canals. Conditions have been favorable for the growing of crops, particularly in the absence of high winds, which have often given much trouble at this season of the year.

New Mexico, Hondo Project.—During April there has been no water in the river and none available for irrigation, no rain having fallen on the watershed during the month.

New Mexico, Leesburg Project.—During April from 275 to 310 second-feet of water have been diverted through the canal and delivered to the lateral ditches of the project. The stage of the river has been quite high during the month, the discharge ranging from 1,500 to 2,000 second-feet. The absence of high winds has been favorable for the growing of crops, and although a late frost damaged fruit to a small extent present conditions indicate that a fair crop will be secured.

MISCELLANEOUS.

A destructive hail storm occurred on the 5th, one mile east of Falfurrias, Tex., causing considerable damage to onions and cotton, and to orange trees. Some of the hailstones were reported as large as hens' eggs.

A heavy rainstorm, accompanied by hail and high wind, passed over Dallas, Tex., on the evening of the 11th. Some of the hailstones weighed from 2 to 3 ounces, and the damage in the city by wind, water, and hail exceeded $25,000. At one time during the storm a funnel-shaped cloud formed in the southwest moving northeast, and another in the northeast moving south, but neither reached the ground before breaking up.

Killing frosts occurred on the 25th in northern and eastern Texas, causing considerable damage to cotton, corn, and tomatoes.

A meteor of great brilliancy was observed near Boquillas, Tex., about 4 a. m., April 27. The detonation was distinctly heard within a radius of 25 miles. On account of the early hour and the sparse settlements in that section, the phenomenon was not generally observed, and it was impracticable to obtain detailed information.

IRRIGATION IN TEXAS.

(Continued from March Review.)

Gravity Irrigation and Power Company, Bay City, Tex., and Chicago, Ill.—Location, Matagorda County, near Bay City post-office. Aggregate acres served, 30,000.

Hardeman County Irrigation Company, Houston, Tex.

Harlingen Land and Water Company, Harlingen, Cameron County.—Miles of canal, 52.

Hidalgo Canal Company, Hidalgo, Hidalgo County.

Hidalgo Irrigation Company, McAllen, Hidalgo County.—Aggregate acres served, 9,300.

Hillside Land and Irrigation Company, Barstow, Ward County.

Imperial Irrigation Company, Fort Stockton, Pecos County.—The system is now under construction and when completed will serve 50,000 acres. Location, Reeves and Pecos counties, nearest post-office, Grandfalls.

Indiana Cooperative Canal Company, Brownsville.—Aggregate acres served, 4,000; additional acreage that could be supplied by present equipment, 2,000; acreage that can be supplied when system is completed, 25,000. Location, Cameron County, near Brownsville.

La Donna Canal Company, Donna, Hildalgo County.

La Feria Mutual Canal Company, La Feria, Harlingen and Brownsville, Cameron County.—Aggregate acres served, 15,000; additional acreage that could be supplied by present equipment, 15,000. Location, Cameron County, near La Feria and Santa Maria post-offices.

La Gloria Canal Company, Santa Maria, Cameron County.

Lakeside Irrigation Company, Lakeside.—Aggregate acres served, 4,500; additional acreage that could be served by contemplated equipment, 20,000. Location, Colorado and Wharton counties, near Eagle Lake and Lissie post-offices.

Lake Wichita Irrigation and Water Company, Wichita Falls.—Aggregate acres served, 2,000; additional acreage that could be supplied by present equipment, 1,500; additional acreage that could be served by contemplated equipment, 3,000. A part of the lake, or main reservoir, lies in Archer County, but all canals, etc., are in Wichita County. Lake Wichita, the reservoir of the Lake Wichita Irrigation and Water Company, lies 5 miles south of Wichita Falls, Tex., and covers 3,000 acres. This lake was built by running a dam 7,000 feet long across the valley of Holliday Creek by which it is fed. The lake was built 8 years ago, for the purpose of providing an inexhaustible supply of water for domestic and commercial purposes in Wichita Falls and to protect the agricultural interests of that section against a repetition of the severe droughts which occurred prior to the time of its building. The lake abounds in fish and is the feeding ground for large numbers of ducks and geese in season.

Lakeview Irrigation Company, Quanah, Hardeman County.

Las Isletas Irrigation Company, Laredo, Webb County.

Leon Valley Irrigated Land Company, Sweetwater, Nolan County.

Llano River Irrigation and Milling Company, Junction, Kimble County.

Lometa Cooperative Irrigation Company, Mission, Hidalgo County.

Lone Star Canal Company, Anahuac.—Aggregate acres served, 12,000; additional acreage that could be supplied by contemplated equipment, 20,000. Location, Chambers County near Anahuac.

Loop Land and Irrigation Company, Barstow, Ward County.

McFaddin, Wiess and Kyle Land Company, Beaumont.—Aggregate acres served, 17,500; additional acreage that could be supplied by present equipment, 2,500. Location, Jefferson County, near Guffey, Nederland and Delphine post-offices.

McGee Irrigating Ditch Company, Sterling City, Sterling County.

Masterson Irrigation Company, Houston, Harris County.

Matagorda Canal Company, Bay City, Matagorda County.

Menard Irrigation Company, Menardville, Menard County.

Mission Land Improvement Company, Mission.—Aggregate acres served, 3,000; additional acreage that could be supplied by present equipment, 7,000; additional acreage that could be served by contemplated equipment, 10,000. Location, Hidalgo County, near Mission post-office.

Moore-Cortes Canal Company, Markham, Matagorda County.

Moore's Canal, Labelle.—Aggregate acres served, about 200; additional acreage that could be supplied by present equipment, 1,000; additional acreage that could be supplied by contemplated equipment, 1,000. Location, Jefferson County, near Labelle post-office.

Mud Creek Agricultural and Irrigation Company, Standart, Kinney County.

Neches Canal Company, Beaumont, Jefferson County.

Northern Irrigation Company, Markham, Matagorda County.

Nueces Valley Irrigation Company, Carrizo Springs, Dimmit County.

Old River Rice Irrigation Company, Mont Belvieu, Chambers County.

Orange County Irrigation Company, Orange, Orange County.

Paint Rock Waterworks and Irrigation Company, Paint Rock, Concho County.

Pecos Valley Land and Irrigation Company, Barstow, Ward County.

Polvo Irrigation Company, Presidio, Presidio County.

Port Arthur Rice and Irrigation Company, Port Arthur and

Nederland.—Aggregate acres served, 9,000; additional acreage that could be supplied by present equipment, 3,500. Location, Jefferson County, near Port Arthur, Nederland, and Port Neches post-offices.

Red Bluff Irrigation Company, Midland, Midland County.

Refugio Land and Irrigation Company, Victoria, Victoria County.

Rio Bravo Canal Company, McAllen, Hidalgo County.

Rio Grande Irrigation Company, San Juan, Hidalgo County.

Rio Grande Valley Land Irrigation Company, El Paso, El Paso County.

Rio Grande Valley Reservoir and Irrigation Company, Chapin.—Aggregate acres served, 100,000. Location, Hidalgo County, near Chapin, San Juan, McAllen, and Mission post-offices.

Rock Island Land and Irrigation Company, Amarillo, Potter County.

San Antonio Irrigation Company, San Antonio.—Aggregate acres served, 1,400; additional acreage that could be supplied by present equipment, 200; additional acreage that could be supplied by contemplated equipment, 1,000. Location, Bexar County, near San Antonio.

San Benito Land and Water Company, San Benito, Cameron County.

[*To be continued.*]

TABLE 1.—*Climatological data for April, 1910. District No. 8, Texas and Rio Grande Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Colorado.																				
Blanca	Costilla	8,403	1	42.1	.....	74	28	12	16†	44	0.90	.....	0.40	4.0	7	15	15	0	nw.	L. C. Audrain.
Cumbres	Conejos	10,015	3	.....	.....	.....	.....	.....	.....	.....	0.23	.....	0.14	9.5	4	12	17	1	sw.	Ida M. Lively.
Garnett	Costilla	7,576	17	44.2	+ 2.8	76	25	15	5	44	1.05	+ 0.71	0.40	4.5	6	14	9	7	sw.	Chas. Speiser.
Hermit	Hinsdale	9,843	.....	.....	.....	.....	.....	.....	.....	.....	1.29	.....	0.84	16.0	3	11	14	5	.....	Marion Mason.
La Veta Pass	Costilla	9,000	.....	.....	.....	.....	.....	.....	.....	.....	3.70	.....	1.45	28.3	3	7	18	5	w.	Norvin R. Lively.
Manassa	Conejos	7,700	4	42.1[d]	.....	74[e]	26†	8[d]	15	46[d]	1.18	.....	0.37	3.0	6	6[d]	16[d]	4[d]	nw.[d]	J. B. Chapman.
Platoro	...do	9,675	2	.....	.....	.....	.....	.....	.....	.....	1.60	.....	0.64	19.4	8	11	14	5	nw.	Walter R. Hook.
Saguache	Saguache	7,740	18	47.8	+ 4.6	80	27	13	4	51	0.69	+ 0.18	0.58	1.1	2	10	7	13	w.	Eugene Williams.
San Luis	Costilla	7,794	19	44.0[f]	+ 1.6	73[f]	27†	10	5	46[f]	0.95	+ 0.11	0.31	4.8	7	14	10	6	sw.	P. B. Albright.
Wagon Wheel Gap	Mineral	8,434	11	37.2	+ 1.5	71	27	8	16	53	0.60	− 0.43	0.40	6.0	2	23	2	5	n.	Ellwood Bergey.
New Mexico.																				
Agricultural College	Dona Ana	3,863	44	60.8	− 0.4	93	28	34	17	49	0.10	− 0.07	0.08	0.0	2	26	10	0	.....	New Mexico Agri. College.
Alamogordo (near)	Otero	4,338	9	60.5	.....	90	27	30	5	42	0.12	− 0.53	0.06	T.	2	20	9	1	sw.	Geo. C. Bemis.
Alamogordo	...do	4,320	.....	.....	.....	.....	.....	.....	.....	.....	T.	.....	T.	0.0	0	.....	.....	.....	.....	El Paso & Southwest. R. R.
Albuquerque	Bernalillo	5,200	34	59.4	+ 3.3	88	27	30	4	38	0.55	+ 0.05	0.28	0.0	6	17	8	5	s.	University of New Mexico.
Ancho	Lincoln	6,112	.....	.....	.....	.....	.....	.....	.....	.....	T.	.....	T.	T.	0	16	5	9	.....	El Paso & Southwest. R. R.
Artesia	Eddy	3,350	.....	61.5	.....	93	28	27	5	50	0.21	.....	0.14	0.0	2	20	5	5	se.	Will Benson.
Aspen Grove Ranch	Rio Arriba	9,000	.....	.....	.....	.....	.....	.....	.....	.....	1.30	.....	0.51	10.4	7	7	16	7	.....	Junius D. Maupin.
Bateman's Ranch	...do	8,900	.....	.....	.....	.....	.....	.....	.....	.....	0.98	.....	0.34	T.	3	15	11	4	w.	John W. Bateman.
Bluewater	Valencia	6,732	8	46.6	.....	79	26	15	1	51	T.	.....	T.	T.	0	13	11	6	nw.	Bluewater Development Co
Bluewater Reservoir	...do	9,000	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Do.
Boaz	Chaves	4,154	1	57.6	.....	92	28	22	5	53	0.06	.....	0.06	0.0	1	16	12	2	w.	D. C. Savage.
Capitan	Lincoln	6,348	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	El Paso & Southwest. R. R.
Carlsbad	Eddy	3,120	15	64.4	+ 0.7	97	29	29	5†	51	0.12	− 0.53	0.08	0.0	3	21	3	6	w.	U. S. Reclamation Service.
Carrizozo	Lincoln	5,429	2	.....	.....	.....	.....	.....	.....	.....	0.35	.....	0.35	T.	1	19	11	0	sw.	A. H. Harvey.
Chama	Rio Arriba	7,851	11	43.8	+ 1.5	76	27	9	15	43	1.05	− 0.47	0.33	.....	6	20	5	5	sw.	Frank C. Johnson.
Cloudcroft	Otero	8,650	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	El Paso & Southwest. R. R.
Corona	Lincoln	6,666	.....	.....	.....	.....	.....	.....	.....	.....	T.	.....	T.	0.0	0	15	8	7	ne.	Do.
Coyote	...do	5,800	.....	.....	.....	.....	.....	.....	.....	.....	0.24	.....	0.24	0.0	1	19	3	8	w.	Do.
Cundiyo	Santa Fe	6,889	1	.....	.....	.....	.....	.....	.....	.....	0.58	.....	0.30	0.0	7	13	6	11	w.	Teofilo Vijil.
Demonstration Farm	San Miguel	6,800	1	.....	.....	.....	.....	.....	.....	.....	0.58	.....	0.55	.....	3	.....	.....	.....	.....	Erb & Westerman.
Duran	Torrance	6,272	1	.....	.....	.....	.....	.....	.....	.....	T.	—	T.	T.	0	24	2	4	.....	W. H. Birkhead.
Edison Mine	Taos	10,600	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Frank L. Paxton.
Elida	Roosevelt	4,345	.....	.....	.....	.....	.....	.....	.....	.....	0.02	.....	0.01	0.0	2	15	10	5	w.	M. W. Waldron.
Elk (near)	Chaves	.....	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Boyd Williams.
Escondido	Otero	4,014	.....	.....	.....	95	28	.....	.....	.....	0.30	.....	0.20	0.0	2	16	9	5	w.	El Paso & Southwest. R. R.
Espanola	Rio Arriba	5,590	12	52.7	+ 1.4	86	28†	21	14	51	0.63	− 0.19	0.45	.....	5	23	1	6	sw.	Mrs. E. F. McBride.
Estancia	Torrance	6,140	5	51.4	.....	85	27	11	4	53	0.24	.....	0.10	1.0	3	18	10	2	e.	New Mex. Central R. R.
Fort Stanton	Lincoln	6,231	32	51.8	+ 0.5	86	28	19	1†	50	0.44	− 0.14	0.17	T.	5	19	7	4	w.	U. S. Sanitarium.
Fort Sumner	Guadalupe	3,960	7	58.3	.....	94	29	24	4	43	0.34	.....	0.21	0.0	2	28	1	1	nw.	F. A. Manzanares.
Gallinas	Lincoln	6,635	.....	.....	.....	.....	.....	.....	.....	.....	0.47	.....	0.15	0.0	4	18	6	6	w.	El Paso & Southwest. R. R.
Gallinas Planting Station	San Miguel	7,500	3	45.4	.....	73	20†	12	16	43	1.63	.....	0.75	11.6	9	7	18	5	nw.	U. S. Forest Service.
Harvey's Upper Ranch	...do	9,400	1	.....	.....	.....	.....	.....	.....	.....	2.70	.....	0.67	27.8	9	11	15	4	se.	Simon B. Warner.
Hillsboro	Sierra	5,224	13	58.5	+ 1.0	89	20	27	3	52	0.05	− 0.29	0.05	T.	1	21	5	4	w.	Dr. Frank I. Givens.
Hodges	Taos	8,484	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Jas. D. Bird.
Hondo Reservoir	Chaves	3,904	1	59.8	.....	94	28†	23	5†	51	0.04	.....	0.04	0.0	1	22	4	4	se.	U. S. Reclamation Service.
Hope	Eddy	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. M. Bott.
Hopewell	Rio Arriba	9,500	.....	35.8	.....	62	27	2	5	45	0.76	.....	0.43	7.7	6	6	11	13	nw.	John T. Blanton.
Jemez Springs	Sandoval	6,100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Linna L. Shields.
Laguna	Valencia	5,840	5	53.8[b]	.....	88[b]	28†	23[b]	5	46[b]	1.21	.....	0.65	2.0	4	21	0	9	w.	Gus Weiss.
Lagunita	Guadalupe	4,500	5	55.8	.....	91	28	28	5	51	0.23	.....	0.14	1.5	3	13	9	8	w.	P. A. Turnbull.
Lake Valley	Sierra	5,413	5	.....	.....	.....	.....	.....	.....	.....	0.30	.....	0.23	T.	3	14	16	0	sw.	Wm. P. Keil.
Las Vegas	San Miguel	6,384	23	49.4	− 0.2	83	28	16	5†	49	0.98	− 0.02	0.45	2.0	8	17	9	4	w.	Dr. Wm. Curtiss Bailey.
Liston	Chaves	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.22	.....	0.22	0.0	1	20	7	3	w.	H. G. Liston.
Los Lunas (near)	Valencia	4,900	20	55.4	− 0.9	92	28	24	5	50	0.06	− 0.50	0.06	0.0	1	19	9	2	.....	Richard Pohl.
Los Tanos	Guadalupe	4,919	.....	.....	.....	.....	.....	.....	.....	.....	0.60	.....	0.60	T.	1	20	7	3	s.	El Paso & Southwest. R. R.
Magdalena	Socorro	6,557	5	51.2	.....	84	28	18	5	50	0.55	.....	0.50	T.	2	18	10	2	w.	Wm. Pender.
Malaga	Eddy	3,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Capt. Chas. Grapes.
Mineral Hill	San Miguel	7,050	5	.....	.....	.....	.....	.....	.....	.....	1.53	.....	1.00	3.0	3	12	14	4	sw.	W. M. Nelson.
Monterey	Otero	4,436	.....	.....	.....	.....	.....	.....	.....	.....	0.15	.....	0.15	0.0	1	21	2	7	sw.	El Paso & Southwest. R. R.
Monument	Eddy	3,500	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Jas. M. Cook.
Mountainair	Torrance	6,547	8	51.3	.....	87	28	20	16	46	1.32	.....	0.47	T.	6	24	3	3	sw.	Mrs. John W. Corbett.
Newman	Otero	3,989	.....	64.8	.....	95	28	34	5†	44	T.	.....	T.	T.	0	20	10	0	sw.	El Paso & Southwest. R. R.
Noria	Dona Ana	4,114	.....	.....	.....	.....	.....	.....	.....	.....	T.	.....	T.	0.0	0	26	5	0	w.	Do.
Orange	Otero	.....	.....	.....	.....	93	27	.....	.....	.....	0.12	.....	0.10	0.0	2	.....	.....	.....	.....	Jas. Brownfield, jr.
Orogrande	...do	4,171	.....	.....	.....	.....	.....	32	5	.....	T.	.....	T.	0.0	0	17	12	1	w.	El Paso & Southwest. R. R.
Oscura (near)	Lincoln	5,016	1	.....	.....	.....	.....	.....	.....	.....	0.10	.....	0.05	0.0	3	20	7	3	s.	Eugene F. Jones.
Otis	Eddy	3,100	1	.....	.....	.....	.....	.....	.....	.....	0.11	.....	0.07	0.0	2	26	2	2	se.	A. M. Hove.
Otto	Santa Fe	6,200	1	.....	.....	.....	.....	.....	.....	.....	0.78	.....	0.58	0.0	4	.....	.....	.....	.....	W. K. Davis.
Pastura	Guadalupe	5,285	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	El Paso & Southwest. R. R.
Picacho (near)	Lincoln	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	P. D. Southworth.
Red River Canyon	Taos	8,650	2	40.3	.....	70	28	7	16	44	1.46	.....	0.80	18.0	6	9	17	4	e.	Mrs. L. R. Penn.
Rincon	Dona Ana	4,030	12	61.3	+ 0.9	94	27†	29	5	54	0.41	+ 0.23	0.41	0.0	1	15	9	6	w.	Chas. H. Raitt.
Rio Grande Dam	Sierra	4,265	12	61.6	+ 2.6	92	27	28	5	45	0.99	+ 0.62	C.72	0.0	3	18	9	3	sw.	U. S. Reclamation Service.
Rosedale	Socorro	6,910	5	50.8	.....	80	28	22	16	36	1.11	.....	0.95	T.	4	22	0	8	w.	W. H. Martin.
Roswell	Chaves	3,578	12	59.6	− 1.0	93	29	27	5	50	0.08	− 0.41	C.06	0.0	4	21	5	4	sw.	U. S. Weather Bureau.
San Marcial	Socorro	4,439	14	60.5	+ 1.2	92	27†	28	4	49	0.10	− 0.14	0.10	0.0	1	14	11	5	sw.	Atch., Topeka & S. F. R. R.
San Rafael	Valencia	6,509	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Chas. M. Grover.
Santa Fe	Santa Fe	7,013	37	47.6	0.0	75	28	18	16	36	0.99	+ 0.13	0.44	0 5	9	20	8	2	e.	U. S. Weather Bureau.
Santa Fe Canyon	...do	8,000	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.0	.....	17	1	12	w.	Candelario Martinez.
Santa Rosa	Guadalupe	4,624	10	58.7	.....	93	28	26	1†	47	0.56	+ 0.17	0.40	T.	4	17	12	1	w.	John L. Chapman.
Socorro	Socorro	4,600	19	61.8	+ 4.1	93	25	27	1†	51	0.88	+ 0.24	0.53	0.0	5	26	4	0	s.	J. J. Leeson.
Stanley	Santa Fe	6,317	1	50.2	.....	87	29	16	5	51	0.56	.....	0.40	0.0	5	20	7	3	nw.	Wilbur F. Castle.
Strauss	Dona Ana	4,080	11	.....	.....	.....	.....	.....	.....	.....	T.	− 0.19	T.	0.0	0	25	2	3	sw.	Southern Pacific Co.
Swastika Ranch	Valencia	6,400	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Swastika S. & L. Co.
Taft	Guadalupe	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.22	.....	0.22	T.	1	21	5	4	s.	A. J. Wilmeth.
Taos	Taos	6,983	12	50.2	+ 1.7	79	28	22	4†	42	0.88	− 0.09	0.61	2.0	7	17	13	0	sw.	Alexander Gusdorf.
Taos Canyon	...do	8,959	.....	.....	.....	.....	.....	.....	.....	.....	2.51	.....	0.80	13.0	13	.....	.....	.....	.....	Leocadio Martinez, jr.
Tecolote	Lincoln	6,539	.....	.....	.....	.....	.....	.....	.....	.....	0.37	.....	0.29	0.0	2	24	3	3	w.	El Paso & Southwest. R. R.
Three Rivers	Otero	4,559	.....	.....	.....	.....	.....	.....	.....	.....	0.32	.....	0.12	0.0	3	20	3	7	.....	Do.
Torrance	Torrance	6,433	.....	.....	.....	.....	.....	.....	.....	.....	0.10	.....	0.10	T.	1	13	14	3	sw.	Do.
Tres Piedras	Taos	8,076	5	43.0	.....	75	28	12	4†	48	0.90	.....	0.50	2.0	2	12	11	7	sw.	Edwin B. Seward.
Truchas	Rio Arriba	7,935	1	42.2	.....	75	28	12	15	47	2.15	.....	0.90	8.0	3	5	22	3	.....	Ignacio Cordova.
Tularosa	Otero	4,436	2	60.2	.....	90	27†	28	16	42	0.24	.....	0.16	0.0	2	16	13	1	w.	Irby L. Fairless.
Vaughn	Guadalupe	5,952	.....	.....	.....	.....	.....	.....	.....	.....	0.02	.....	0.02	0.2	1	.....	.....	.....	.....	El Paso & Southwest. R. R.
Winsors	San Miguel	8 200	12	41.0	+ 0.8	78	26	6	16	45	1.20	− 0.24	0.45	.....	7	14	6	10	w.	Henry D. Winsor.

TABLE 1.—*Climatological data for April, 1910. District No. 8*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Texas.																				
Abilene	Taylor	1,738	25	65.8	+ 1.8	94	21	38	25	43	1.31	− 0.97	1.01	0.0	4	17	5	8	s.	U. S. Weather Bureau.
Albany	Shackelford	1,429	16	63.2	− 1.1	94	21	31	25	51	2.76	+ 0.67	2.11	0.0	4	21	3	6	.....	N. L. Bartholomew.
Alvin	Brazoria	49	11	.....	.....	.....	.....	.....	.....	.....	0.92	− 2.68	0.65	0.0	2	13	7	10	nw.	F. A. Smith.
Anahuac	Chambers	23	1	.....	.....	.....	.....	.....	.....	.....	0.56	.....	0.30	0.0	4	.....	.....	.....	.....	B. H. Collins.
Austin	Travis	593	24	67.1	− 1.6	86	28	42	25	35	4.82	+ 0.89	2.68	0.0	8	18	6	6	e.	A. Deussen.
Ballinger	Runnels	1,637	15	64.8	+ 0.3	96	30	37	25	49	2.94	+ 0.69	2.22	0.0	4	20	5	5	s.	E. M. Eubank.
Barstow	Ward	2,573	3	63.2	.....	99	29	26	17	61	T.	.....	T.	0.0	0	24	5	1	se.	W. H. Denis.
Bay City	Matagorda	53	....	.....	.....	.....	.....	.....	.....	.....	2.24	.....	1.25	0.0	4	17	4	9	s.	E. C. Quereau.
Beaumont	Jefferson	29	13	69.1	.....	89	28	37	25	36	0.68	− 2.93	0.49	0.0	4	20	0	10	se.	John Bender.
Beeville	Bee	225	14	70.4	− 0.6	96	15	45	25	40	4.55	+ 1.91	2.65	0.0	6	13	6	11	e.	L. E. Dickey.
Big Springs	Howard	2,396	12	66.6	.....	97	30	34	16	44	1.00	− 0.46	0.71	0.0	5	21	3	6	s.	B. Reagan.
Blanco	Blanco	1,350	14	61.8	− 2.4	85	30	37	20	38	5.00	+ 1.05	2.83	0.0	6	17	9	4	s.	R. C. Crist.
Boerne	Kendall	1,412	18	67.4	+ 0.3	90	27†	35	5	40	3.38	− 0.33	1.98	0.0	7	15	7	8	se.	F. W. Schweppe.
Booth	Fort Bend	81	9	.....	.....	.....	.....	.....	.....	.....	1.52	.....	0.70	0.0	6	19	0	11	e.	T. R. Booth.
Bowie	Montague	1,113	16	65.4	+ 1.0	92	28	33	25	43	3.46	+ 0.69	1.80	0.0	5	15	7	8	s.	Craig Anderson.
Brazoria	Brazoria	25	21	68.0	− 1.1	94	27	40	6	49	1.07	− 2.51	0.55	0.0	8	24	1	5	s.	Mrs. M. A. Stevens.
Brazos	Palo Pinto	801	1	.....	.....	.....	.....	.....	.....	.....	3.03	.....	1.18	0.0	5	17	5	8	n.	Robt. E. Boyett.
Brenham	Washington	350	21	67.7	− 1.5	90	28	39	25	43	3.65	− 0.14	1.44	0.0	8	15	5	10	n.	Mrs. B. F. Sloan.
Bridgeport	Wise	754	1	.....	.....	.....	.....	.....	.....	.....	3.65	.....	1.34	0.0	5	25	3	2	s.	Wm. M. Wilkinson.
Brighton	Nueces	12	14	72.4	+ 1.9	95	14	48	17	32	1.02	− 0.78	0.60	0.0	4	17	13	0	se.	G. H. Ritter.
Brownsville	Cameron	38	21	73.2	0.0	94	14	46	17	42	0.81	− 0.38	0.53	0.0	3	.....	.....	.....	s.	U. S. Weather Bureau.
Brownwood	Brown	1,342	20	63.6	− 1.5	92	21†	35	25	52	1.29	− 1.74	0.35	0.0	5	19	9	2	n.	Mrs. Pearl Smith.
Cameron	Milam	.....	2	67.4	.....	92	28	36	25	48	4.63	.....	1.76	0.0	9	19	9	2	s.	J. E. Watts.
Carmona	Polk	330	2	65.7	.....	89	28	31	25	45	3.22	.....	1.22	0.0	9	18	6	6	s.	M. S. Spitler.
Claytonville	Fisher	2,100	6	66.8	.....	94	29†	31	25	53	0.80	.....	0.47	0.0	3	22	4	4	s.	Wm. Lanius.
Coleman	Coleman	1,710	16	65.2	+ 1.4	88	28†	40	25	36	1.65	− 0.90	0.93	0.0	4	21	3	6	s.	J. H. Tucker.
College Station	Brazos	308	19	67.6	− 0.4	88	27†	37	25	42	4.25	+ 0.91	1.88	0.0	8	19	6	5	s.	Prof. G. S. Fraps.
Colorado	Mitchell	2,066	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. M. Webb.
Columbia	Brazoria	34	21	67.8	− 1.5	90	12†	40	6†	43	1.06	− 1.84	0.56	0.0	4	16	10	4	s.	R. B. Loggins.
Columbus	Colorado	206	6	.....	.....	.....	.....	.....	.....	.....	2.80	.....	0.78	0.0	7	14	6	10	nw.	Mrs. Sophie Bridge.
Comstock	Valverde	1,557	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. D. Brown.
Corpus Christi	Nueces	20	23	70.6	− 0.3	91	14	54	17	31	2.58	+ 0.78	1.89	0.0	6	14	8	8	se.	U. S. Weather Bureau.
Corsicana	Navarro	445	21	65.2	− 1.0	92	28	35	25	45	2.65	− 1.01	1.60	0.0	8	19	5	6	nw.	E. L. Gibson.
Crockett	Houston	350	6	66.0	.....	90	17	33	25	42	7.58	.....	3.17	0.0	8	18	8	4	s.	A. M. Rencher.
Cuero	DeWitt	177	21	68.4	− 1.3	91	27	43	5†	43	3.99	+ 1.11	2.95	0.0	6	18	0	12	n.	H. R. Frobese.
Dallas	Dallas	466	21	64.0	− 1.0	90	28	35	25†	47	5.75	+ 2.25	1.78	0.0	8	16	2	12	s.	G. A. Eisenlohr.
Danevang	Wharton	145	14	66.6[d]	− 1.7	88	13†	38[d]	23	41[d]	2.85	− 1.03	1.75	0.0	3	20	3	7	se.	H. P. Hermansen.
Decatur	Wise	1,047	4	.....	.....	.....	.....	.....	.....	.....	4.20	.....	1.50	0.0	5	19	8	3	.....	Fort Worth & Denver Ry.
Del Rio	Valverde	952	4	69.4	− 0.6	92	21	43	5	44	3.30	+ 0.36	2.52	0.0	5	19	5	6	se.	U. S. Weather Bureau.
Devine	Medina	653	....	71.0	.....	93	27	42	5†	46	3.34	.....	3.01	0.0	3	20	4	6	se.	M. A. Keller.
Dialville	Cherokee	575	12	65.9	.....	88	28	34	25	40	6.18	+ 1.47	4.10	0.0	7	16	9	5	s.	J. M. B. McKnight.
Dilley	Frio	569	....	.....	.....	.....	.....	.....	.....	.....	3.20	.....	1.95	0.0	4	.....	.....	.....	.....	John W. Miller.
Dublin	Erath	1,466	15	64.0	+ 0.5	89	27	34	25	39	3.11	− 0.11	0.97	0.0	7	17	5	8	w.	Jno. O. Shafer.
Duval	Travis	820	21	66.4	− 2.5	88	28	39	25	37	2.55	− 1.34	1.31	0.0	7	16	3	11	n.	J. C. Edgar.
Eagle Pass	Maverick	800	21	70.7	− 2.3	99	18	43	16	48	2.22	+ 0.62	1.55	0.0	4	5	19	6	n.	Jos. Metcalfe.
Edna	Jackson	71	1	.....	.....	.....	.....	.....	.....	.....	3.02	.....	1.70	0.0	3	.....	.....	.....	.....	E. L. Faires.
El Paso	El Paso	3,762	31	63.6	− 0.2	92	28	34	16	38	T.	− 0.23	T.	0.0	0	20	8	2	w.	U. S. Weather Bureau.
Encinal	La Salle	558	2	73.5	.....	96	21	46	6	44	0.35	.....	0.30	0.0	2	15	8	7	e.	H. C. Braden.
Fairland	Burnet	1,000	1	65.7	.....	91	29	34	25	44	2.57	.....	1.59	0.0	6	18	3	9	n.	R. L. Bush.
Falfurrias	Starr	.....	3	72.0	.....	93	14†	45	25	45	3.18	.....	0.94	0.0	5	18	12	0	se.	W. A. Gardner.
Flatonia	Fayette	465	2	68.8	.....	91	27	40	25	38	2.06	.....	1.29	0.0	7	15	6	9	s.	Fred W. Laux.
Flint	Smith	483	....	65.0	.....	89	21	32	25	42	4.79	.....	1.66	0.0	11	17	7	6	s.	F. C. C. Carter.
Fort Clark	Kinney	1,050	23	68.8[a]	− 2.3	91[a]	27	44	4	38[a]	4.84	+ 3.05	1.90	0.0	4	19	6	5	se.	Post Hospital.
Fort McIntosh	Webb	460	24	76.9	+ 2.1	98	27	50	1	38	1.12	− 0.59	0.50	0.0	5	20	1	9	se.	Do
Fort Stockton	Pecos	3,050	13	67.0	+ 3.8	99	29	31	5	45	0.39	− 0.08	0.22	0.0	3	18	9	3	se.	H. H. Buts.
Fort Worth	Tarrant	670	15	64.6	− 0.7	90	28	33	25	40	2.65	0.00	1.66	0.0	8	15	10	5	nw.	U. S. Weather Bureau.
Fredericksburg	Gillespie	1,742	21	65.2[a]	− 0.6	89[a]	29	40[a]	25	39[a]	2.66	− 0.81	1.84	0.0	5	19	6	5	s.	Arthur Striegler.
Gainesville	Cooke	738	21	63.8	0.0	90	28	33	25	43	3.68	+ 0.04	1.05	0.0	7	.....	.....	.....	.....	J. L. Hickson.
Galveston	Galveston	69	40	69.1	+ 0.4	81	17	45	25	20	0.92	− 2.21	0.91	0.0	3	16	10	4	se.	U. S. Weather Bureau.
Gatesville	Coryell	795	6	65.4	.....	85	13†	33	25	46	0.80	.....	0.70	0.0	2	22	8	0	.....	John Ryan.
Georgetown	Williamson	750	15	65.2	− 1.1	90	27†	34	25	48	3.29	− 0.67	1.27	0.0	7	18	3	9	s.	Prof. R. F. Young.
Gonsales	Gonsales	299	5	.....	.....	.....	.....	.....	.....	.....	3.31	.....	1.50	0.0	4	14	0	16	s.	J. M. Johnson.
Graham	Young	1,040	11	65.8	+ 0.0	94	21†	32	25	52	1.68	− 0.77	0.86	0.0	5	19	5	6	n.	C. W. Johnson.
Grand Saline	Van Zandt	.....	....	.....	.....	.....	.....	.....	.....	.....	3.05	.....	1.24	0.0	8	15	10	5	s.	F. E. Whittemore.
Grapevine	Tarrant	670	20	66.6	+ 1.4	91	28	35	25	42	3.49	+ 0.22	1.43	0.0	6	12	9	9	s.	W. J. Crowley.
Greenville	Hunt	550	10	65.0	+ 0.8	90	28†	32	26	49	3.10	− 1.16	1.10	0.0	6	15	0	15	e.	J. P. Regan.
Hallettsville	Lavaca	235	19	67.1	− 3.2	86	29	44	20†	37	2.83	− 0.58	1.66	0.0	6	17	5	8	s.	Dr. J. E. Lay.
Harper	Gillespie	.....	....	.....	.....	.....	.....	.....	.....	.....	2.55	.....	1.44	0.0	6	17	3	10	.....	Christian Fritz.
Haskell	Haskell	4,013	19	63.8	− 0.1	97	29	34	23	46	1.23	− 1.03	1.13	0.0	2	20	7	3	s.	P. D. Sanders.
Hebbronville	Duval	.....	3	.....	.....	.....	.....	.....	.....	.....	1.30	.....	1.15	0.0	2	.....	.....	.....	.....	Henry Edds.
Hempstead	Waller	254	6	.....	.....	.....	.....	.....	.....	.....	2.50	.....	1.40	0.0	6	12	2	16	n.	J. H. Hancock.
Henderson	Rusk	500	1	.....	.....	.....	.....	.....	.....	.....	4.64	.....	2.01	0.0	8	16	6	8	.....	M. Kangerga.
Hewitt	McLennan	664	15	.....	.....	.....	.....	.....	.....	.....	0.92	− 2.98	0.55	0.0	4	.....	.....	.....	.....	I. H. Earle.
Hillsboro	Hill	628	7	64.6	.....	90	28†	30	25	44	3.39	.....	2.00	0.0	4	.....	.....	.....	.....	Thompson & Campbell.
Hondo	Medina	901	8	65.4	.....	90	25†	45	17	44	3.81	.....	2.87	0.0	3	21	4	5	.....	H. E. Haass.
Houston	Harris	138	21	68.4	− 0.7	87	27	41	25	32	0.80	− 3.00	0.64	0.0	5	15	8	7	se.	U. S. Weather Bureau.
Huntsville	Walker	400	22	64.8	− 2.8	87	28	34	25	39	6.48	+ 2.49	3.25	0.0	5	17	0	13	se.	W. Y. Barr.
Jewett	Leon	496	6	66.3	.....	95	29	34	25†	51	4.02	.....	2.20	0.0	6	15	8	7	n.	Earle Adkisson.
Junction	Kimble	1,645	7	64.5	.....	90	21	34	25	48	4.20	.....	1.50	0.0	5	19	0	11	.....	Judge John S. Durst.
Kaufman	Kaufman	448	11	66.0	+ 0.1	89	28	33	25	40	1.81	− 1.16	0.70	0.0	5	16	11	3	s.	B. J. Hubbard.
Keene	Johnson	940	2	68.4	.....	89	28	40	25	29	2.73	.....	1.40	0.0	6	16	5	9	.....	Industrial Academy.
Kerrville	Kerr	1,650	15	64.2	− 0.2	89	27	32	17	51	3.43	− 0.39	1.47	0.0	6	14	7	9	.....	Mrs. F. Coleman.
Knickerbocker	Tom Green	2,050	6	65.2	.....	94	30	34	25	48	1.83	.....	0.85	0.0	4	22	4	4	s.	Jos. Tweedy.
Kopperl	Bosque	576	10	.....	.....	.....	.....	.....	.....	.....	2.72	.....	1.50	0.0	6	12	5	13	s.	T. A. Johnson.
Lampasas	Lampasas	1,026	19	63.2	− 2.6	91	28	34	26	52	2.39	− 1.17	1.25	0.0	4	14	14	2	s.	Mrs. K. I. Webber.
La Parra	Cameron	38	8	.....	.....	.....	.....	.....	.....	.....	1.31	.....	0.71	0.0	3	.....	.....	.....	.....	John G. Kennedy.
Laureles Ranch	Nueces	20	11	.....	.....	.....	.....	.....	.....	.....	1.28	− 0.76	0.87	0.0	2	.....	.....	.....	.....	Matt Cody.
Le Min Ranch	Terrell	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Lewis Le Min.
Liberty	Liberty	38	6	63.9	.....	90	12	35	25	47	2.19	.....	1.04	0.0	3	20	8	2	n.	Mrs. Fannie Sneed.
Llano	Llano	1,040	19	66.8	− 1.1	91	28	39	24	45	1.16	− 1.74	1.00	0.0	5	21	7	2	e.	E. W. Torrence.
Llano Grande	Hidalgo	88	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. D. Wardlow.
Long Lake	Anderson	229	5	.....	.....	.....	.....	.....	.....	.....	3.02	.....	0.80	0.0	8	13	11	6	n.	Tom Ritson.
Longview	Gregg	336	21	64.2	− 1.6	89	28	35	25	42	4.89	+ 0.60	1.97	0.0	9	19	3	8	se.	C. A. Propst.
Lufkin	Angelina	325	3	65.6	.....	88	28	32	25	40	4.33	.....	1.40	0.0	7	19	1	10	s.	T. A. King.
Luling	Caldwell	418	21	67.4	− 2.4	90	27	43	25	40	4.17	+ 1.26	1.50	0.0	7	15	3	12	s.	John Carter.
McGregor	McLennan	713	....	.....	.....	.....	.....	.....	.....	.....	0.72	.....	0.32	0.0	3	14	8	8	s.	T. E. Streight.
Marathon	Brewster	4,043	....	60.7	.....	89	29†	32	15†	41	0.15	.....	0.10	0.0	2	14	8	8	s.	Rev. A. P. Willis.

TABLE 1.—*Climatological data for April, 1910. District No. 8*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Texas—Cont'd.																				
Marble Falls	Burnet	771	2	.....	.....	.....	.....	.....	.....	.....	3.70	.....	1.36	0.0	6	18	1	11	.....	Wm. Harrison.
Marfa	Presidio	.....	2	.....	.....	.....	.....	.....	.....	.....	0.00	.....	0.00	0.0	0	.....	.....	.....	.....	R. K. Colquitt.
Marshall	Harrison	375	1	64.6	.....	87	28	32	25	42	4.69	.....	2.45	0.0	9	8	18	4	s.	Lee Scott.
Mexia	Limestone	537	6	64.2	.....	88	28	33	25†	47	5.07	.....	2.82	0.0	7	14	9	7	w.	Miss Josephine Newman.
Midland	Midland	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21	9	0	sw.	H. J. Elder.
Mont Belvieu‖	Chambers	65	.....	.....	.....	.....	.....	.....	.....	.....	0.87	.....	0.38	0.0	5	16	8	6	se.	A. R. Shearer.
Mt. Blanco	Crosby	2,750	22	61.4	+ 0.8	93	29	32	6†	46	2.85	− 0.94	2.85	0.0	1	17	3	10	n.	H. C. Smith.
Nacogdoches	Nacogdoches	271	11	63.4	− 2.3	85	28	34	25	42	4.22	− 0.43	1.90	0.0	4	17	5	8	s.	Miss Mary Hofmann.
New Braunfels	Comal	720	21	67.6	− 0.9	88	27	43	6	36	3.70	+ 0.10	2.14	0.0	5	17	6	7	n.	J. Giesecke.
Palestine	Anderson	510	28	65.1	− 0.8	85	28	34	25	33	3.64	− 0.44	2.32	0.0	9	15	11	4	s.	U. S. Weather Bureau.
Panter	Hood	1,000	20	.....	.....	.....	.....	.....	.....	.....	1.59	− 1.68	0.57	0.0	7	.....	.....	.....	.....	E. H. Snider.
Pearsall	Frio	629	.....	.....	.....	.....	.....	.....	.....	.....	1.06	.....	0.93	0.0	4	.....	.....	.....	.....	H. E. Walker.
Pierce	Wharton	102	4	62.8	.....	83	29	36	25	38	2.07	.....	0.82	0.0	5	15	11	4	.....	R. B. Pointer.
Plainview	Hale	3,370	2	59.4	.....	95	29	27	5	43	1.09	.....	0.70	T.	3	21	7	2	n.	J. F. Sander.
Port Lavaca	Calhoun	20	9	70.6	.....	93	18	48	20†	39	4.11	.....	2.73	0.0	4	19	10	1	s.	J. H. Bickford.
Ricardo	Nueces	57	1	71.6	.....	92	14†	45	25	40	2.46	.....	1.10	0.0	8	16	10	4	se.	Lindsay Waters.
Riverside	Walker	169	6	.....	.....	.....	.....	.....	.....	.....	4.47	.....	1.54	0.0	6	13	1	16	s.	Mrs. C. W. Higdon.
Robert Lee	Coke	1,850	2	65.1	.....	97	30	36	16	47	1.35	.....	0.85	0.0	4	21	5	4	s.	H. D. Pearce.
Rockland	Tyler	136	6	.....	.....	.....	.....	.....	.....	.....	2.40	.....	1.40	0.0	4	16	0	14	sw.	D. W. Bellamy.
Rosville	Atascosa	558	3	70.1	.....	98	28	36	20	53	2.52	.....	2.01	0.0	4	13	13	4	se.	W. F. M. Ross.
Runge	Karnes	308	15	.....	.....	.....	.....	.....	.....	.....	3.77	+ 0.41	3.59	0.0	2	.....	.....	.....	.....	Reiffert & Frobese.
Sabinal	Uvalde	964	6	69.6	.....	91	18†	44	17	43	3.50	.....	3.05	0.0	4	16	4	10	e.	Jas. Johnson.
San Angelo	Tom Green	1,847	2	65.2	.....	98	30	37	5	43	2.00	.....	1.05	0,0	4	19	8	3	s.	Sam Crowther.
San Antonio	Bexar	701	25	69.5	+ 0.5	91	27	46	25	38	3.31	+ 0.37	2.51	0.0	5	17	6	7	se.	U. S. Weather Bureau.
San Augustine	San Augustine	360	1	64.4[b]	.....	90[b]	28	31[b]	25	46[b]	1.65	.....	0.46	0.0	5	15	8	7	.....	F. A. Wilson.
San Juanito‖	Hidalgo	.....	1	75.2	.....	97	14	49	15†	44	2.11	.....	0.62	0.0	6	13	1	16	se.	J. B. McAllen.
San Marcos	Hays	588	17	66.8	− 1.0	87	28	43	6†	40	3.80	+ 0.18	2.25	0.0	4	14	0	16	n.	Miss L. C. Ford.
San Saba	San Saba	1,712	6	64.0	.....	89	28	35	6†	47	3.07	.....	2.29	0.0	4	20	8	2	s.	Jas. Burns.
Santa Gertrudes	Nueces	.....	8	.....	.....	.....	.....	.....	.....	.....	2.55	.....	1.25	0.0	5	.....	.....	.....	.....	J. B. Wright, jr.
Seymour	Baylor	1,150	4	64.4	.....	94	23†	32	25	48	2.04	.....	0.91	0.0	5	22	5	3	s.	F. M. Deaver.
Somerville	Burleson	251	1	69.8	.....	90	29†	37	25	48	0.28	.....	0.09	0.0	5	13	0	17	s.	W. A. Dolan.
Sonora	Sutton	2,200	7	63.8	.....	92	30	33	6	53	1.99	.....	0.51	0.0	6	9	18	3	s.	Mike Murphy.
Sugarland	Fort Bend	79	12	.....	.....	92	28	.....	.....	.....	3.37	− 0.89	1.35	0.0	3	24	1	5	s.	O. M. Bakke.
Taylor	Williamson	583	9	66.6	− 0.9	88	28	37	25	39	2.13	− 1.84	1.43	0.0	8	17	3	10	s.	U. S. Weather Bureau.
Temple	Bell	630	16	68.0	+ 1.6	90	27†	38	25	36	3.67	− 0.29	3.10	0.0	6	13	7	10	s.	H. D. Patterson.
Tilden	McMullen	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Wm. Kuykendall.
Tivoli	Refugio	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.51	.....	1.55	0.0	3	10	8	12	.....	W. H. Gisler.
Uvalde	Uvalde	937	2	70.2	.....	93	18†	43	17†	46	3.27	.....	2.89	0.0	4	13	14	3	se.	F. M. Getzendaner.
Valley Junction	Robertson	289	5	.....	.....	.....	.....	.....	.....	.....	4.68	.....	1.30	0.0	7	19	1	10	n.	T. M. Williams.
Victoria	Victoria	187	12	69.6	− 3.1	92	27	45	25	38	4.43	+ 1.21	3.50	0.0	7	17	0	13	s.	C. C. Zirjacks.
Waco	McLennan	424	21	65.3	− 2.3	88	28	38	25†	44	1.36	− 3.30	0.88	0.0	4	15	1	14	s.	E. H. Hall.
Waxahachie	Ellis	556	14	64.2	0.0	93	28	30	25	51	2.76	− 0.13	1.79	0.0	4	15	6	9	s.	C. D. Longserre.
Weatherford	Parker	864	21	64.1	− 1.3	89	28†	35	25	42	3.67	− 0.12	1.06	0.0	7	20	6	4	s.	Miss J. Stickfort.
Wharton	Wharton	105	8	.....	.....	.....	.....	.....	.....	.....	1.79	.....	1.16	0.0	3	.....	.....	.....	.....	Mrs. F. M. Hughs.
Wills Point	Van Zandt	524	5	63.7	.....	87	13†	30	24	45	1.98	.....	0.80	0.0	5	21	4	5	s.	W. W. Gibbard.
Zapata	Zapata	300	1	76.0	.....	103	15	43	17	48	0.41	.....	0.31	0.0	2	17	4	9	se.	F. H. Earnest.

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
‖ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
[ ] Estimated by observer.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for April, 1910. District No. 8, Texas and Rio Grande Valley.*

Stations.	River basins	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Colorado.																																	
Blanca	Rio Grande			T.	.05		T.	T.	T.	T.	.02	.10	.10	.40	.11	.12											T.						0.90
Cumbres	do							T.		.04	T.	T.	.02	T.	.14	.03																	0.23
Garnett	do				.06						.11		.10	.40	.08	.30																	1.05
Hermit	do			T.	T.				T.	T.			.15	.84	.30						T.												1.29
La Veta Pass	do			.97			T.				T.		1.28	T.	1.45																		3.70
Manassa	do				.20					.17	.10	.15		.37	.07	.22						T.				T.							1.18
Platora	do				.13			T.	.15	.20			.02	.64	.28	.17						.01											1.60
Saguache	do													.58	T.	.11											T.						0.69
San Luis	do				.31			T.			.07		.25	.15	.07	.09	.01										T.						0.95
Wagon Wheel Gap	do			.20									.40																				0.60
New Mexico.																																	
Agricultural College	Rio Grande								.08	.02																							0.10
Alamogordo (near)	do							.06							.06	T.																	0.12
Alamogordo	do										T.																						T.
Albuquerque	do							.09	.01	.28				.12	.04	.01																	0.55
Ancho	do										T.			T.	T.	T.																	T.
Artesia	Pecos									.24						.07																	0.21
Aspen Grove Ranch	Rio Grande			.10				.02		.51	.09			*	.12	.46																	1.30
Bateman's Ranch	do				T.			.34		.32			T.	.32	T.	T.						T.											0.98
Bluewater	do			T.				T.		T.																							T.
Bluewater Reservoir	do																																
Boas	Pecos									.06																							0.06
Capitan	do																																
Carlsbad	do	.02							T.	.08					T.	.02																	0.12
Carrizozo	Rio Grande								T.	.35				T.	T.	T.																	0.35
Chama	do			T.				T.		.16	.18	.09		.33	.13	.16	T.																1.05
Cloudcroft	Pecos																																
Corona	do										T.																						T.
Coyote	Rio Grande									.24																							0.24
Cundiyo	do							.03	T.	.30	.04		.02	.12	.02	.05																	0.58
Demonstration Farm	Pecos									.55		.01	.02																				0.58
Duran	do									T.						T.						T.											T.
Edison Mine	Rio Grande																																
Elida	Pecos									.01						.01																	0.02
Elk (near)	do																																
Escondido	Rio Grande	T.							.10							.20																	0.30
Espanola	do							T.		.45	.08			.03	.05	.02																	0.63
Estancia	do			.10									.04										.10										0.24
Fort Stanton	Pecos	T.	.01							.07	.05			T.	.14	.17																	0.44
Fort Sumner	do								.13	.21																							0.34
Gallinas	do									.15			.14		.10	.08																	0.47
Gallinas Pltg. Station	do							T.	.15	.75		.07	.02	.41	.05	.10	.06					.02	T.				T.						1.63
Harvey's Upper Ranch	do			T.			.09	.26	.41	.67		.17	.22	.18	.21	.49			T.								T.						2.70
Hillsboro	Rio Grande	T.						T.	T.	.05						T.																	0.05
Hodges	do																																
Hondo Reservoir	Pecos		T.							T.						.04																	0.04
Hope	do																																
Hopewell	Rio Grande				.02			T.	T.	.43	.01	T.	T.	.23	.04	.03	T.					T.				T.	T.						0.76
Jemez Springs	do																																
Laguna	do						T.	T.	.65	.40					.08	.08																	1.21
Lagunita	Pecos				.07			T.	T.	.14						.02	T.																0.23
Lake Valley	Rio Grande	.02					T.		.05	.23			T.		T.	T.																	0.30
Las Vegas	Pecos				T.				.03	.45		.24	.02	.06	.02	.13	.03																0.98
Liston	do									.22																							0.22
Los Lunas (near)	Rio Grande													.06																			0.06
Los Tanos	Pecos									.60						T.																	0.60
Magdalena	Rio Grande						.05	T.	T.	.50				T.	T.	T.											T.						0.55
Malaga	Pecos																																
Mineral Hill	do									1.00				.10		.43						T.											1.53
Monterey	Rio Grande								T.						.15																		0.15
Monument	Pecos																																
Mountainair	Rio Grande							.06	.07	.47	.14			T.	.29	.29																	1.32
Newman	do								T.	T.	T.				T.	T.																	T.
Noria	do																																T.
Orange	do									.02						.10																	0.12
Orogrande	do							T.	T.																								T.
Oscura	do								.02	.05	.03			T.	T.	T.																	0.10
Otis	Pecos	.07	T.							T.						.04																	0.11
Otto	Rio Grande						.05	.13	T.	.58					T.	.02	T.					T.											0.78
Pastura	Pecos																																
Picacho (near)	do																																
Red River Canyon	Rio Grande			*	.32				T.	.18			*	.80		.16																	1.46
Rincon	do								T.	.41																							0.41
Rio Grande Dam	do						T.			.72						.20																	0.99
Rosedale	do						.05	T.	T.	.95	T.			.62	.09	T.																	1.11
Roswell	Pecos	T.								.01	.01				.02	.04																	0.08
San Marcial	Rio Grande									.10																							0.10
San Rafael	do																																
Santa Fe	do				T.		.06	.19	.03	.44	.04	T.	.03	.10	.02	.08						T.											0.99
Santa Fe Canyon	do																																
Santa Rosa	Pecos				.07				T.	.40				T.	T.	.03	.06					T.											0.56
Socorro	Rio Grande						.06			.53	.12					.03	.14																	0.88
Stanley	do							.05	.05	.40			T.	T.	.04	.02											T.						0.56
Strauss	do									T.																							T.
Swastika Ranch	do																																
Taft	Pecos									.22						T.																	0.22
Taos	Rio Grande			.03				.08			.06	.24	.41	*	.04											.02							0.88
Taos Canyon	do				.20			.12	.03	.28	.03	.01	.10	.80	.68	.09	.14					.02				.01							2.51
Tecolote	do									.29					.08																		0.37
Three Rivers	do	.12						T.		.15				T.	.05																		0.32
Torrance	Pecos								.10					T.																			0.10
Tres Piedras	Rio Grande				T.			T.	T.	.50		T.	T.	.40	T.		T.																0.90
Truchas	do									.75				.90	T.		.50				T.	T.											2.15
Tularosa	do								T.	T.	.08					.16																		0.24
Vaughn	Pecos															.02																	0.02
Winsors	do				.18					.12			.03	.45	.31	.09	.02																1.20
Texas.																																	
Abilene	Brazos	.55	.54							.21				.01																			1.31
Albany	do	.50	2.11						.10	.05																							2.76
Alvin‖	Coast	.65				.27										T.																	0.92
Anahuac	do	.06			.18	.30															.02												0.56
Austin	Colorado	.58	.64		.29				.14	2.68	.24	.09	.16	T.		T.																	4.82
Ballinger‖	do		.72	1.50							.18				.54																		2.94
Barstow	Pecos									T.						T.																	T.

TABLE 2.—*Daily precipitation for April, 1910. District No. 8*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Texas—Cont'd.																																	
Bay City	Colorado	.15				.29				T.	1.25		.55																				2.24
Beaumont‖	Neches	.07				.49										.01	.11																0.68
Beeville‖	Coast	T.	.65	.12	.13	T.				T.	2.65		.70		T.		.30							T.									4.55
Big Springs	Colorado	.02	.02						T.	.71	.23					.02																	1.00
Blanco‖	Guadalupe	.62	.36	.06						2.83	.59	.54																					5.00
Boerne	San Antonio	.55	T.	.05				.05	1.98	.60	.08	.67	T.																				3.38
Booth‖	Brazos		.30	.08	.09	.70					.32																						1.52
Bowie	Trinity		.50	.72	T.						T.	.39		1.80		.05																3.46
Brazoria	Brazos	.01			.02	.30	.01			.09	.55	.08			.01	T.																1.07
Brazos‖	...do	.72		1.18							.31					.38	.44															3.03
Brenham‖	...do	.40	1.44	T.	.16	.59				.49	.21	.30				T.	.06							T.									3.65
Bridgeport‖	Trinity		.57	.80							.67					1.34	.27															3.65
Brighton	Coast	.09			.60					.30			T.			.03																1.02
Brownsville	Rio Grande	.24	T.		.53								.04										T.									0.81
Brownwood‖	Colorado	.35	.35	T.					.06	.18				.35		T.																1.29
Cameron‖	Brazos	1.03	.45	.10	.13	T.				1.76	.03	.84	.04			.25	T.															4.63
Carmona	Neches	T.		.14	.80	.42		T.		.33	T.	.24	.65		.03	.12	.49															3.22
Claytonville	Brazos	.28	.05							.47																						0.80
Coleman	Colorado	.93	.37							.10				.25		T.																1.65
College Station	Brazos		.32			.41				.41	.01	.74	1.88			.40	.08															4.25
Colorado	Colorado																															
Columbia	Brazos	T.			.20	.05				.25		.56			T.	T.																1.06
Columbus‖	Colorado	.78	.50		.68	.18				.04	.60						.02															2.80
Comstock	Rio Grande																															
Corpus Christi	Coast	T.	T.	.02	.30				T.	1.89		.05			.05	.27							T.									2.58
Corsicana‖	Trinity	.48	.33	.04		.10				1.60	.04		.04				.02															2.65
Crockett	...do		.07	.13	3.17	.20				1.85		T.	.10		T.	2.03	.03															7.58
Cuero‖	Guadalupe	.89	.08	.05						2.05	.90						.02															3.99
Dallas‖	Trinity	.22	1.34	.51		.11				1.78			1.68			.03																5.75
Danevang	Coast				T.	1.00				1.75		.10																					2.85
Decatur	Trinity	.48	1.02							1.50					.60	.60																4.20
Del Rio	Rio Grande	.20	.10						.77	1.77					.46																	3.30
Devine	Nueces	.23	T.					T.	T.	3.01	.10					T.																3.34
Dialville	Neches	.22		.25	4.10			.03	1.02	T.					.20	.36							T.									6.18
Dilley	Nueces	.25	.50							.50	1.95																					3.20
Dublin‖	Brazos	.40	.97	.94						.48	.05				.26		.01															3.11
Duval	Colorado	.60	.05	T.	T.			T.	.24	1.31	.22	.11	.02	T.	T.	T.																2.55
Eagle Pass	Rio Grande	.10	.10						.47	1.55																						2.22
Edna	Lavaca				.62					1.70				.70							T.											3.02
El Paso	Rio Grande							T.		T.						T.																T.
Encinal	Nueces	.05										.30																				0.35
Fairland	Colorado	.22	.09	T.	T.			T.	T.	1.59	.29	.05	.33		T.																	2.57
Falfurrias	Coast		.44			.85	.75		T.	T.		.94	T.	.20	T.																	3.18
Flatonia	Guadalupe	.05	.20		.05	.20				1.29	.18	.05					.04															2.06
Flint	Neches	.07	.49	.26	1.66	.77			.22	.85		.04	.06		.34	T.	.03						T.									4.79
Fort Clark‖	Rio Grande	.63							1.68	.63				1.90																		4.84
Fort McIntosh	...do	.06						.36	.03			.50	.17																			1.12
Fort Stockton	Pecos	T.	.11					T.	T.	.22						.06																0.39
Fort Worth	Trinity	.91	.87	T.	.08				.26	T.				.44	.07	.01	.01														T.	2.65
Fredricksburg	Colorado	.14	.17						.28	1.84	.23				T.																	2.66
Gainesville	Trinity	.08	.81		.49				1.05	.20					.75		.30															3.68
Galveston	Coast				.87	.04			T.	.01	T.	T.				T.	T.															0.92
Gatesville	Brazos	.70	.10																													0.80
Georgetown‖	...do	.80	.15	T.		.52				1.27	.15	.37	.03			T.																3.29
Gonzales‖	Guadalupe	.48		.07						1.50	1.26																					3.31
Graham	Brazos	.59	.86	.10					T.			.08		T.	.05																	1.68
Grand Saline	Sabine	.19	.60	.15	.45			T.	1.24	.26	T.	.08				.08						T.										3.05
Grapevine	Trinity	.15	1.43	T.	.10					1.28					.49	.04																3.49
Greenville‖	Sabine	.10	.80	.35		.35				1.10			.40				T.															3.10
Hallettsville	Lavaca	.12	T.		.12	.62			T.	1.66	.26	T.			T.	T.	.03															2.83
Harper	Colorado	.25	.15					.16	1.44	.40	.15																					2.55
Haskell	Brazos	.10								1.13																						1.23
Hebbronville	Coast				.15							1.15																				1.30
Hempstead‖	Brazos		.14	T.	T.	1.40				.20	.36	.15					.25															2.50
Henderson	Neches			.18	2.01	.40			T.	.50			.12		.75	.60	.08															4.64
Hewitt	Brazos	.08	.26	.03	T.					.55	T.	T.																				0.92
Hillsboro	...do	.63	.42			.34					2.00																					3.39
Hondo	Nueces	.26						T.		2.87	.68																					3.81
Houston	Coast	.02	.02		.64					.10							.02															0.80
Huntsville‖	Trinity	.34	T.			3.25						1.10	.69			T.	1.10															6.48
Jewett‖	...do	.26	.17	.47				2.20				.15			.77						T.											4.02
Junction	Colorado	1.00	.40						1.10	.20	1.50																					4.20
Kaufman	Trinity	.10	.70	.25	.16					.60		T.																				1.81
Keene	Brazos	.15	1.40	.10	.08					.23		.77																				2.73
Kerrville‖	Guadalupe	1.47		.09					.04	1.34	.45	.04																				3.43
Knickerbocker	Colorado	.62								.14	.22			.85			T.															1.83
Kopperl‖	Brazos		.30	.10	.40					1.50	.22		.20																			2.72
Lampasas‖	...do		.79						1.25		.14		.41																			2.59
La Parra	Coast	.45			.71					.15																						1.31
Laureles Ranch	...do	.87		.41																												1.28
Le Min Ranch	Pecos																															
Liberty‖	Trinity	.50	1.04			.65					T.					T.	T.															2.19
Llano	Colorado	.03	.03	T.					T.	1.00	.04	.06																				1.16
Llano Grande	Rio Grande																															
Long Lake‖	Trinity		.80	.30	.20	.54	.64			.20						.30	.04															3.02
Longview‖	Sabine	.10		.11	.05	1.97			.30		.12		.40			1.62	.22															4.89
Lufkin	Neches		.20	.41	.53	.73				.63					1.40		.43															4.33
Luling‖	Guadalupe	.08	.32	.50		.72				1.50	1.00	.05					T.															4.17
McGregor	Brazos	T.	.28	T.	.12					.32			T.																			0.72
Marathon	Rio Grande									T.						.10	.05															0.15
Marble Falls‖	Colorado	.30		.16	T.					1.30	.36	1.02	.44																			3.70
Marfa	Rio Grande																															0.00
Marshall	Sabine	.02	.07		2.45	.45			.05			.37			.93	.30	.05															4.69
Mexia‖	Brazos	.40	.75	.68	.02	.15				2.82		.25	T.				T.															5.07
Midland	Colorado																															
Mont Belvieu	Coast				.08	.37				.38					.03	.01																0.87
Mt. Blanco	Brazos	T.	T.							2.85																						2.85
Nacogdoches‖	Neches		T.		T.	1.90				.53	T.				T.	.07	1.72															4.22
New Braunfels	Guadalupe	.07	T.		.20				.21	2.14	1.08																					3.70
Palestine	Trinity	.24	.09	.22	.58				1.35	.97	T.	T.			.16	.01	.02															3.64
Panter	Brazos	.57	.54						.08	.08		.07		.10		.15																1.59
Pearsall	Nueces	.02							.04	.93	.07																					1.06
Pierce	Colorado				.19	.06				.82		.40			.60																	2.07
Plainview	Brazos	T.			.02					.37				.70		T.																1.09

TABLE 2.—*Daily precipitation for April, 1910. District No. 8*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Texas—Cont'd.																																	
Port Lavaca	Coast	T.			T.	.98			T.	2.73		.24			.16																4.11
Ricardo	...do	.58	.02		.54			.10			1.10	.05	.04		.03								T.								2.46
Riverside‖	Trinity	.25	T.			1.20						.48	1.54			.30	.70															4.47
Robert Lee‖	Colorado	.32	.85							.14							T.						.04									1.35
Rockland‖	Neches					.46				.42		T.	.12					1.40														2.40
Rosville	Nueces	.43							T.	2.01	.07	.01			T.	T.																2.52
Runge	San Antonio									3.59						.18																3.77
Sabinal	Nueces	.20	.25					T.	.05	3.00																						3.50
San Angelo	Colorado	1.05	.05							T.		.48			T.																	2.00
San Antonio	San Antonio	.11		T.	.28			T.	.56	2.12		.24																				3.31
San Augustine	Neches	T.	T.	T.	.19	.23		T.	T.	.41					T.	.46	.36															1.65
San Juanito	Coast	.50	T.	.60	.06			.03	T.			.62	.30			T.																2.11
San Marcos‖	Guadalupe					.70				2.25		.80	.05																			3.80
San Saba	Colorado	2.29	.03							.69			.06			T.																3.07
Santa Gertrudes‖	Coast	.50	.20	.20	.40				1.25																							2.55
Seymour	Brazos	.19	.04							.91		.32				T.																2.04
Somerville	...do	.09	T.	T.	T.	.02				.04		.07				.06																0.28
Sonora	Rio Grande	.40	.02	T.					.25	.51		.38			.43																	1.99
Sugarland	Brazos		1.32		1.35					.70																						3.37
Taylor	...do	.23	.01		.34				.12	1.32		.06	.02		.03	T.																2.13
Temple‖	Brazos	.09	.10	T.	.10				3.10	T.		.12	.16	T.																		3.67
Tilden	Nueces																															
Tivoli	Guadalupe									1.55		.86			.10																	2.51
Uvalde	Nueces	.14	.19						.05	2.89				T.																		3.27
Valley Junction‖	Brazos		1.26	.50	.30		.60			1.30		.30	.48																			4.68
Victoria‖	Guadalupe	.05	.15		.25	.05				3.50	.10					.33																4.43
Waco‖	Brazos		.32		.14	.02				.88																						1.36
Waxahachie‖	Trinity		.60	.23	T.	.14				1.79	T.																					2.76
Weatherford‖	...do	.55	.70	1.06		.02				.94					.26		.14															3.67
Wharton‖	Colorado	.18			.45					1.16																						1.79
Wills Point	Sabine	.10	.80	.15	.56			T.		T.	T.	.37			T.	T.																1.98
Zapata	Rio Grande	T.			.10				T.			T.	.31																			0.41

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 8, Texas and Rio Grande Valley.*

Date.	Colorado.				New Mexico.																Texas.							
	Garnett.		San Luis.		Agricultural College.		Carlsbad.		Fort Stanton.		Mountainair.		Rosedale.		Roswell.		Santa Fe.		Santa Rosa.		Abilene.		Big Springs.		Brownsville.		Corpus Christi.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	56	18	59	20	68	39	61	47	62	19	66	23	57	27	67	36	56	30	71	26	57	49	68	48	82	62	74	70
2...	63	21	58	29	74	36	82	39	67	25	68	32	65	32	78	40	61	30	74	52	76	56	78	52	81	66	75	70
3...	56	26	58	27	75	41	83	50	66	34	69	32	64	43	78	40	61	29	75	43	80	63	84	54	82	72	75	71
4...	44	20	41	17	64	44	74	46	55	28	58	25	57	38	63	36	46	23	69	29	72	50	78	55	80	66	76	66
5...	53	15	56	16	72	35	73	29	68	24	66	22	54	25	71	27	57	24	68	26	71	43	73	35	76	66	75	59
6...	58	20	55	25	79	48	80	46	67	34	68	36	58	38	77	38	52	40	73	33	75	52	77	47	80	51	72	63
7...	60	24	58	29	74	46	79	46	65	35	66	36	59	34	78	42	55	33	75	41	68	60	81	56	82	63	74	67
8...	61	24	59	24	70	49	76	52	64	30	63	33	63	34	77	45	58	37	73	51	82	61	80	59	81	71	75	71
9...	59	24	54	28	72	49	75	50	62	41	54	38	49	34	71	52	47	36	64	46	74	57	73	52	80	71	73	64
10...	67	27	.....	34	76	39	84	47	66	36	64	39	63	38	78	40	58	36	74	43	80	57	79	51	83	69	74	67
11...	60	32	.....	32	80	43	88	46	74	37	67	36	66	38	83	44	61	36	77	46	86	63	87	57	84	71	77	70
12...	58	30	.....	35	84	40	89	44	74	30	72	40	63	40	85	43	63	45	82	47	85	56	90	55	88	66	78	67
13...	50	34	.....	32	64	39	86	55	65	38	60	30	53	29	66	50	50	31	69	43	83	61	83	54	81	69	77	71
14...	44	27	.....	24	74	46	79	54	62	41	45	33	54	33	74	45	47	26	66	46	84	57	84	57	94	74	91	73
15...	40	18	.....	19	57	42	75	40	46	27	35	23	39	24	53	32	40	22	57	32	70	47	76	45	86	74	80	58
16...	52	16	49	16	65	35	70	29	55	19	61	20	56	22	66	28	51	18	64	31	67	41	67	34	76	63	71	58
17...	62	25	60	23	79	34	85	34	75	30	67	32	71	40	83	35	63	27	80	42	82	48	87	47	88	46	85	54
18...	66	27	66	27	83	40	82	42	71	32	72	34	70	41	78	46	66	35	76	41	75	50	79	49	88	56	90	60
19...	69	29	66	27	84	41	83	44	78	29	78	35	71	35	80	41	69	41	83	39	75	43	83	49	83	55	80	65
20...	71	30	69	27	90	41	92	44	80	30	81	44	77	48	90	41	72	42	87	40	86	49	86	51	87	50	75	55
21...	54	33	67	33	83	48	91	54	72	53	70	45	67	46	81	47	58	35	76	49	94	58	96	59	84	60	78	61
22...	67	24	65	23	75	43	84	42	70	28	68	27	65	40	75	36	64	33	75	33	75	51	77	46	87	67	77	68
23...	71	32	62	26	80	40	86	41	76	29	71	31	70	39	80	36	68	36	77	41	76	49	82	47	84	62	82	59
24...	69	27	60	26	81	50	83	49	75	32	72	32	70	38	76	42	68	35	78	40	72	50	77	46	90	58	82	56
25...	73	29	63	29	87	47	82	49	82	34	76	38	76	45	79	42	71	43	78	39	74	38	80	39	75	54	67	54
26...	72	32	65	30	89	53	85	47	82	37	82	36	72	40	84	34	72	40	83	41	84	41	87	46	82	53	77	58
27...	75	31	73	30	92	52	90	45	81	40	84	39	75	42	87	44	74	46	88	46	87	47	91	47	86	66	78	66
28...	76	35	73	32	93	50	96	54	86	37	87	46	80	47	93	51	75	45	93	55	91	60	95	63	88	57	76	63
29...	71	44	69	39	90	48	97	52	81	42	81	44	70	48	93	51	70	40	88	57	90	64	96	63	84	64	77	69
30...	66	32	66	32	87	52	95	61	79	47	79	40	74	39	90	56	69	38	84	48	92	65	97	64	82	69	78	70
31...																												
Mns	61.4	26.9	61.3	26.8	78.0	43.7	82.8	45.9	70.2	33.3	68.3	34.0	64.3	37.2	77.8	41.3	60.7	34.4	75.9	41.5	78.8	52.9	82.4	50.9	83.5	63.0	77.3	64.1

Date.	Texas.																											
	Del Rio.		El Paso.		Fort McIntosh.		Fort Stockton.		Fort Worth.		Galveston.		Hallettsville.		Houston.		Lufkin.		Palestine.		Plainview.		San Antonio.		Seymour.		Taylor.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	67	52	65	42	82	50	58	45	65	54	73	68	74	64	79	61	82	58	76	59	67	42	74	59	71	53	72	57
2...	78	60	75	43	87	55	80	52	72	58	75	69	76	66	81	65	82	62	77	62	77	48	79	64	75	56	77	63
3...	82	66	75	52	88	58	86	49	75	65	76	70	75	68	78	67	78	63	77	65	80	49	80	66	86	55	77	67
4...	85	57	64	44	92	68	73	52	75	53	71	62	76	67	71	58	76	65	69	58	75	35	82	61	72	52	76	56
5...	76	43	72	37	90	65	76	31	69	48	72	60	70	50	70	54	69	48	66	48	68	27	78	49	72	41	70	48
6...	79	50	78	56	86	55	78	46	77	49	73	61	72	46	79	51	80	40	76	50	71	34	78	48	78	37	77	46
7...	78	60	72	54	84	65	82	48	71	55	74	67	76	56	78	59	75	52	72	55	78	40	79	58	76	52	72	56
8...	82	63	68	54	83	70	80	58	80	62	73	68	75	66	78	62	79	59	76	61	76	46	78	67	82	59	79	64
9...	68	62	72	49	88	70	77	49	65	59	71	68	67	64	73	65	73	57	66	60	66	45	70	62	73	59	71	60
10...	75	62	75	46	85	70	86	47	72	60	74	66	77	62	79	64	80	60	75	59	76	42	74	61	77	57	71	59
11...	85	67	79	55	92	68	89	50	85	66	74	69	76	66	79	64	81	64	78	62	75	45	78	66	81	54	76	66
12...	88	62	82	50	93	66	94	54	83	59	76	69	79	63	85	62	86	55	84	60	80	48	88	64	83	55	82	61
13...	77	68	65	44	91	66	85	56	85	57	75	70	79	65	82	67	81	69	85	62	73	50	78	66	81	61	82	62
14...	90	61	73	47	97	70	83	51	83	60	76	72	79	70	78	70	82	68	79	67	75	46	87	67	80	52	86	65
15...	78	53	55	40	96	72	83	42	63	51	77	64	85	70	81	61	85	65	81	54	66	38	84	60	62	46	77	61
16...	74	49	64	34	96	60	68	34	66	45	68	56	70	54	68	54	70	64	66	48	60	28	73	55	68	40	69	51
17...	87	44	78	40	92	60	87	45	81	50	81	61	80	50	83	52	80	45	80	50	76	36	85	50	81	44	84	48
18...	92	48	83	46	95	60	84	50	71	50	80	62	79	53	80	57	80	52	70	56	72	41	87	60	82	46	77	55
19...	86	52	83	54	94	60	86	44	69	45	72	60	73	50	73	53	69	45	65	50	73	44	80	53	76	43	74	49
20...	90	50	89	54	94	60	95	51	81	43	72	56	78	44	78	48	78	38	77	44	89	46	84	49	85	50	82	43
21...	92	58	84	58	96	60	96	57	87	58	73	65	81	49	81	54	81	47	82	56	80	50	86	55	86	54	84	53
22...	82	57	75	49	96	62	90	47	74	56	76	68	74	59	77	61	73	46	74	59	74	38	77	58	70	39	76	59
23...	86	45	80	47	91	55	89	44	69	51	78	62	75	50	78	56	72	49	68	53	76	40	83	53	94	48	75	50
24...	83	49	78	51	89	60	83	45	64	43	70	61	74	54	70	57	66	54	63	45	71	40	77	54	71	46	72	53
25...	77	44	87	55	87	55	83	45	72	33	64	45	70	45	67	41	66	32	65	34	74	35	76	46	72	32	72	37
26...	84	50	89	57	93	55	86	54	79	39	72	61	81	44	82	50	74	36	75	43	81	39	86	48	82	34	84	48
27...	88	60	91	60	98	65	89	56	84	45	80	63	84	55	87	60	84	45	83	54	83	49	91	56	87	42	87	49
28...	91	59	92	59	93	65	98	58	90	53	76	65	82	54	85	61	88	50	85	55	91	50	88	56	94	53	88	52
29...	91	58	88	64	95	65	99	61	87	63	74	67	86	59	83	61	85	51	83	59	95	55	87	62	92	55	85	56
30...	91	64	87	60	97	65	98	61	87	64	76	69	78	61	80	62	84	54	83	61	86	52	86	65	93	70	85	63
31...																												
Mns	82.9	55.8	77.3	50.0	91.3	62.5	84.7	49.4	76.0	53.1	74.1	64.1	76.7	57.5	78.1	58.6	78.0	53.1	75.2	55.0	76.1	42.6	81.1	57.9	79.4	49.6	78.0	55.2

Climatological Data for April, 1910.

DISTRICT No. 9, COLORADO VALLEY,

FREDERICK H. BRANDENBURG, District Editor.

GENERAL SUMMARY.

The dominant characteristics of the weather conditions considered, April in the Colorado drainage area may be divided into two parts. The first, which includes the period up to the middle of the month was unsettled, with several sharp changes in temperature throughout the district. It was during this period that almost all the precipitation of the month was noted. The latter half of the month was generally clear, with much bright sunshine, only one sharp fall in temperature, and that not extensive, and no precipitation in Nevada or New Mexico, while only a few showers were noted in Utah and Wyoming. In Colorado on the 21st and the closing days precipitation was generally noted.

During the 1st and 2d a low-pressure area was in course of development in the middle Plateau region. By the morning of the 3d the depression had crossed the Continental Divide, the pressure rising rapidly meanwhile in the Pacific Northwest. Sharp falls in temperature, with local snow, attended the advance of the front of the high on the 3d. On the morning of the 4th freezing temperatures prevailed throughout the drainage basin of the Colorado, except in southern Arizona, and similar temperature conditions again prevailed on the morning of the 5th. From the 7th to the 11th temperatures were somewhat above the normal.

On the 11th another low pressure having an important bearing on the weather conditions of the district began to develop in Nevada. Unfortunately for agricultural and horticultural interests, its course was first southeastward. Its progress, impeded by conditions prevailing east of the Mississippi, was notably slow, while low temperatures continued to develop in the anticyclone in the northwest. By the morning of the 14th the low center had reached western Kansas, a position favorable to the advance of the anticyclone, which, on the morning of the 15th, brought hard freezing weather again to the entire drainage basin of the Colorado, except southern Arizona. The freeze was even severer in localities on the morning of the 16th. During the remainder of the month the low-pressure areas followed northerly tracks and temperatures, except on 2 days, were above the average, the excess being marked in Arizona from the 18th to 29th, and in the upper part of the district from the 23d to the 29th. In western Wyoming the maximum temperatures noted on the 27th and 28th are the highest of record for April.

While there was damage to fruit and gardens by the freezing temperatures of the 4th, 5th, 15th, 16th, 21st, and 22d, minimized in localities by smudging, the fact is generally overlooked, when frosts are reported, that in Colorado, New Mexico, Utah, and other mountainous districts, owing to the great range in altitude at which fruit is grown, not to mention the effect of exposure, fruits are never at the same stage of advancement; hence, while in one locality the loss may be serious, others within a few miles may entirely escape injury.

The mean temperature of the 124 stations reporting was 54.6°, or 2.4° above the normal. By subdivisions the means and departures were: Western Wyoming, 43.4°, +6.4°; western Colorado, 43.9°, +2.2°; eastern Utah, 50.1°, +3.4°; western New Mexico, 53.7°, +2.0°; Arizona, 63.8°, +2.0°. The highest monthly mean was 74.4° at Mesa, Ariz.; the lowest, 26.1° at Corona, Colo. The extremes were: 110° at Gila Bend, Mohawk Summit, Parker, and Casa Grande, Ariz., and —5° at Whitepine, Colo. In western Wyoming the maximum reached 82°; in the valleys of western Colorado readings in the 80's were general, and in eastern Utah and western New Mexico readings in the 90's were noted.

The average precipitation for the 172 stations reporting was 0.55 inch, or 0.27 inch below the normal. By watersheds the means and departures were: Green, 0.53, −0.54; Grand, 1.08, −0.54; San Juan, 0.94, −0.19; Little Colorado, 0.67, −0.17; Gila, 0.25, −0.17; lower Colorado, 0.21, −0.06. The greatest monthly amount was 2.74 inches at Corona, Colo., while none occurred at several stations in Utah, New Mexico, and Arizona. On an average there were 3 days with 0.01 inch or more of precipitation.

The sunshine was above the average. Grand Junction and Durango reported 79 per cent; Flagstaff, 84; Phoenix, 90; and Yuma, 93 per cent of the possible.

The mean relative humidity was slightly above the normal in central Arizona, and below the normal in the upper part of the district. The following values were reported: Grand Junction, 44; Durango, 48; Flagstaff, 52; Phoenix, 37, and Yuma, 35 per cent.

STREAM FLOW AS AFFECTED BY TEMPERATURE CONDITIONS.

Cold snaps at this time of the year have an appreciable effect on the flow in the streams of the upper watershed of the Colorado. Diurnal changes in temperature are clearly reflected, the small streams rising and falling at regular intervals. The variable distances from the sources of supply to the mouths of these feeders and the fact that they are situated here and there along the course tend to reduce in the trunk stream the fluctuations so marked in the tributaries. Although noticeable, they gradually disappear with increased distance from the headwaters.

With warm days and cold nights a heavy flow in the upper reaches is out of the question. When the nights are also warm the fluctuations are not so marked; it is at such times, however, that high water may be expected if the snow covering is considerable. During April, 1910, the volume discharged by the Grand and Green rivers, which join in southeastern Utah and form the Colorado, was considerably in excess of the volume discharged in the corresponding month last year, notwithstanding the much heavier snowfall of the winter of 1908-9. The increased flow of the current month is explained by the difference in temperature. April, 1910, averaged much above the normal, while April, 1909, was notably cold. During the first 10 days of April the flow was very steady and the amount about the average that obtained for the month of April, 1909. During the second and third decades there was a steady rise in the Grand and Green, with the maximum on the last day of the month. In the Colorado proper there was a moderately high stage at the beginning of the month, then a gradual decline, with the minimum about the middle of the month. A steady and fairly rapid rise then followed, with the maximum also on the 30th.

PROGRESS ON THE COLORADO RIVER PROJECT.

The engineer in charge of the Yuma Irrigation Project, Arizona-California, reports that filings and water-right applications have been made for all of the farm units, which were opened to entry on March 1, and that about 40 settlers are already engaged in preparing their land for agriculture. Throughout the month of April water was run through canals on the reservation for priming purposes, and practically every canal built has received more or less water. Water has been supplied to the experiment station farm, and to a few of the settlers, for the use of their stock. The Farmers' Pumping Plant and the scoop wheel have been in constant operation.

Work on the Colorado siphon is being pushed rapidly on both sides of the river. The total penetration on the Arizona shaft

is 115 feet to date, and the material at present is extremely hard sandstone. On the California side material very difficult to handle has been encountered. It consists of a layer of large boulders, about 10 feet in thickness, lying on a sandstone formation with considerable dip. Immediately above the boulders is quicksand. The shaft on this side has reached a depth of 80 feet. This siphon is one of the remarkable features of the Yuma Project. It will carry a large volume of water from the canal on the California side, under the Colorado River, to irrigate the lands on the Arizona side of the river. In this conduit, passing under the river, the siphon will have a diameter of 14 feet, and a total length of 1,000 feet. When completed, the water will pass under the river, under heavy pressure, and will develop considerable power to be utilized later for pumping water to higher lands.

The Reclamation Service has employed the services of 2 expert submarine divers, from San Pedro, Cal., to assist in the work of excavating the shafts on each side of the Colorado River, which are to constitute the intake and outlet of the inverted siphon under the river. The edges of the excavation have not been trimmed off sufficiently to allow the concrete shaft to sink to this level, the "clamshell" digger, which has been employed scooping sand out of the 70-foot depth of water in the shaft, not being sufficient for this purpose, working in a bowl-shaped cut. Blasting is necessary to round out the shaft, and the divers are employed to lay the blasts under the water. They are fulfilling this work gradually and successfully. Less than 50 feet of the Arizona shaft yet remains to be excavated, after which the work under the river will be begun. The project, as a whole, is about 80 per cent complete.

ROOSEVELT DAM COMPLETION.

It is expected that the great Roosevelt Dam, on the Salt River, 70 miles east of Phoenix, Ariz., will be completed in June of this year. The dam is 235 feet long on the bottom, and its base covers nearly an acre. A portion of the dam is already completed to its entire height, 280 feet. On top of the dam there will be a 20-foot roadway the entire length of 1,080 feet. The waters held back by the dam will be used to make fruitful more than 200,000 acres of land. The reservoir has a capacity of 1,284,000 acre-feet, making it the largest artificial body of water in the United States, if not in the world. All of the cement used in the dam and accessory structures is from the Government's cement mill, which has turned out to date approximately 350,000 barrels. The power used in the work is generated at the dam site by the Reclamation Service.

The Secretary of the Interior has granted an extension of time for the completion of the 5 and 6 foot valves for the power equipment at the dam. As certain changes in the material were deemed advisable, the drawings were not fully approved until March 1, 1910, and the date for completion of the contract was accordingly set forward. Under this arrangement a portion of the contract will be filled in July, 1910, and the remainder in August, 1910.

MISCELLANEOUS.

Initial steps have been taken for two large projects which will do much for the Grand Valley in western Colorado. A deal has been closed for a 5,000-acre tract of land on Hunter's Mesa, near Rifle, and the construction of a reservoir and ditches to cost $500,000. All the land will be irrigated for fruit. Work will be started at once.

The Udlock Investment Company is to build a reservoir and power plant above Collbran, Colo., in the Plateau Valley. The water will be secured from the Middles and will supply Grand Junction and other points in the immediate vicinity. It is planned to build an electric road into Grand Junction from Plateau Valley, and to irrigate several thousand acres in the district. The entire project will cost $1,500,000.

The Mimbres Valley Irrigation Company has about completed its dam across the Mimbres River, north of Deming, N. Mex. This dam is for the purpose of holding flood waters during the rainy season, and later distribution through the ditches. There are 28 quarter sections of land under this ditch, and the company is confident that with the improved facilities there will be no shortage of water this year.

Irrigation by means of wells is receiving considerable attention in the vicinity of Deming, N. Mex. The recently completed well of Dr. P. K. Connaway, pumps 1,500 gallons a minute. Five large well-drilling outfits are now in active operation in the vicinity, and it is expected that there will be at least 50 new irrigation plants in operation in the Mimbres Valley before June 1. To obviate the difficulty attending the getting of the water to the top of the ground, when the individual engine is the source of power, arrangements are under way for the building of a 400-horsepower plant to take care of the various irrigating wells.

TABLE 1.—*Climatological data for April, 1910. District No. 9, Colorado Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Daniel	Uinta	6,740	11	41.0	+ 7.9	78	26	11	4	50	0.10	− 0.66	0.10	1.0	1	22	8	0	nw.	J. M. Van Dervort.
Dixon	Carbon																			Chas. Spillman.
Eden	Sweetwater	6,577	2	42.8		80	27	12	4	51	0.22		0.09	1.0	3	12	12	6	w.	Eden Valley L. and I. Co.
Green River	...do	6,083	5	49.0	+ 5.0	82	27	18	4	48	0.10	− 0.41	0.07	1.5	3	18	3	9	w.	Geo. H. Maxon.
Kendall	Fremont	7,630																		Art. Doyle.
Pinedale	...do	7,167	4	40.6		75	27	13	3†	49	0.02		0.02	0.0	1	19	9	2	nw.	U. S. Forest Service.
Rambler	Carbon	9,232									1.92		0.80	27.4	6	16	9	5	w.	J. C. Fothergill.
Colorado.																				
Ashcroft	Pitkin	9,483	8	35.9		70	27	− 1	16	45	2.61		1.20	28.0	8					Dan McArthur.
Breckenridge	Summit	9,536	20	33.9	+ 3.7	65	28	0	16	45	0.98	− 2.08	0.44	15.0	5	3	22	5	nw.	Mrs. J. G. Thompson.
Cascade§	San Juan	8,900	4								0.69		0.53	1.5	4	20	2	8	e.	San Juan P. and W. Co.
Chromo	Archuleta	7,500	4																	Lawrence Nolan.
Cochetopa	Saguache	9,088									1.05		0.55	8.0	5	10	18	2	w.	Bessie McDonough.
Collbran	Mesa	6,000	17	48.0		77	27	19	16	35	0.97	− 0.52	0.31	0.0	5	15	9	6	sw.	A. A. Wood.
Columbine	Routt	8,766									1.42		0.49	13.0	5	14	14	2	sw.	Mrs. M. A. Caron.
Columbine Ranch	Delta	6,925									0.47		0.22	1.8	3	18	5	7	s.	Geo. W. Wade.
Corona	Grand	11,660	3	26.1		51	28	− 1	4	29	2.74		0.61	32.4	12	13	8	9	w.	U. S. Weather Bureau.
Crawford (near)	Montrose	6,600		46.0		76	27	17	4	36	0.55		0.28	2.0	4	16	4	10		C. W. Roe.
Crested Butte	Gunnison	8,867		35.6		69	28	4	2	45	1.88		0.47	4.0	7	18	8	4	w.	Charles L. Ross.
De Beque	Mesa	4,935		53.4		87[a]	25†	23	5	56	0.20		0.10	T.	4	10	6	5		C. M. Paine.
Delta	Delta	4,965	19	52.7	+ 1.9	89	27	19	5	52	0.26	− 0.29	0.20	0.0	2	17	10	3		E. M. Getts.
Dillon	Summit	8,800	1								0.28		0.12	4.3	3	15	7	8	n.	Harry T. Hamilton.
Dolores	Montezuma	6,500	1																	Geo. R. Simmons, jr.
Durango	La Plata	6,534	17	47.7	+ 1.2	78	27	19	16	42	0.55	− 0.71	0.20	T.	6	9	16	5	nw.	U. S. Weather Bureau.
Eagle	Eagle	6,598	5	42.8[b]		73[a]	26	15[c]	16	46[b]	0.52		0.40	2.0	2	22[b]	4[b]	2[b]		J. M. Witteman.
Eureka§	San Juan	10,000	3								1.19		0.31	14.0	6					San Juan P. & W. Co.
Fraser	Grand			34.6		67	28†	8	4	50	0.70		0.30	8.1	4	11	10	9	n.	L. D. C. Gaskill.
Fruita	Mesa	4,510	11	53.0	+ 1.9	86	27	19	16	51	0.20	− 0.58	0.11	T.	4	18	4	8	sw.	J. B. Willsea.
Gladstone §	San Juan	10,400	3								1.69		0.83	16.4	5	3	21	6	ne.	San Juan P. & W. Co.
Glenwood Springs (near)	Garfield	5,823	12																	E. A. O'Neil.
Grand Junction	Mesa	4,608	19	55.2	+ 2.0	85	27	26	16	42	0.32	− 0.44	0.16	0.1	5	15	8	7	nw.	U. S. Weather Bureau.
Grandlake	Grand	8,153	2																	Mrs. Belle Kauffman.
Grand Valley	Garfield	5,089	18	51.2	+ 2.2	85	26	18	16	54	0.42	− 0.79	0.14	T.	7	12	12	6		David Evans.
Gunnison	Gunnison	7,670	17	43.2	+ 3.8	76	29	8	15	50	0.65	− 0.14	0.48	2.0	5	10	13	7	sw.	Clarence Adams.
Hayden	Routt	6,337	1																	C. W. Harkness.
Hesperus	La Plata	8,870	11																	John S. Spear.
Horsefly	Montrose	8,700									1.41		0.40	11.5	7	20	8	2	sw.	L. J. Finch.
Ironton	Ouray	10,000									2.17		0.67	25.7	7	10	14	6	sw.	P. H. Foley.
Kremmling (near)	Grand	7,337	2	42.8		73	27	15	5	48	1.15		0.33	0.5	8	9	13	8		H. A. Howe.
Lake City	Hinsdale	8,686	5	40.8		71	27	9	15†	36	1.51		0.57	16.2	7	10	10	10	s.	J. F. Maurer.
Lay	Routt	6,190	16	44.2	+ 2.3	78	28	12	16	53	0.95	− 0.19	0.50	5.0	3	19	4	7	sw.	A. G. Wallihan.
Leal	Grand	8,750									1.20		0.40	11.0	4	10	15	5		L. J. Wade.
Lujane	Montrose	6,620	4	49.6		79	27	20	4†	38	1.16		0.35	1.5	5	17	8	5	sw.	U. S. Reclamation Service.
Mancos	Montezuma	6,960	11	46.0	+ 1.7	76	27	10	15	45	1.87	− 0.23	1.36	8.4	5	15	13	2	nw.	B. M. Krumpanitzky.
Marble	Gunnison	7,951	1	42.3		76	27	10	5	45	1.35		0.35	11.5	9	14	11	5	e.	Homer Harrington.
Marshall Pass	Saguache	10,846	7								0.80		0.28	18.0	4	20	7	3	w.	William D. Lillard.
Meeker	Rio Blanco	6,182	18	45.8	+ 2.1	80	27	12	16	48	1.08	− 0.48	0.55	2.0	6	14	14	2	sw.	T. Baker.
Montrose (near)	Montrose	5,811	21	47.9	+ 0.6	79	26†	18	5	45	0.60	− 0.39	0.54	0.0	2	13	14	3		R. Butterfield.
Nast	Pitkin	7,953		40.0		67	27†	11	5†	32	1.28		0.70	11.7	5	13	12	5	w.	Arthur Hanthorn.
Pagoda	Routt	6,500	19	46.0	+ 4.2	82	26	14	4†	50	1.03	− 0.94	0.40	6.0	4	16	6	8		Shaw Brothers.
Pagosa Springs	Archuleta	7,108	3	43.0		76	27†	10	15	51	0.82		0.39	1.0	5	9	15	6	sw.	E. T. Walker.
Paonia	Delta	5,694	15	52.4		84	27	21	16	39	0.57	− 0.42	0.15	T.	5	11	15	4	sw.	J. M. Underwood.
Parshall	Grand		1								0.99		0.33	12.0	4					F. A. Field.
Pitkin	Gunnison	9,500	1								0.45		0.17	6.7	4	13[a]	11[a]	5[a]		Mrs. Maggie Cammann.
Rangely	Rio Blanco	5,050	11	48.3	+ 1.6	85	27	18	16	48	0.38	− 0.17	0.23	T.	4	9	15	6	w.	Mrs. C. P. Hill.
Redcliff	Eagle	8,695	15								2.05	+ 0.24	0.62	15.7	7	12	8	10		Dorothea Greiner.
Rico	Dolores	8,824	8								1.18		0.49	10.1	10	14	11	5	sw.	Clinton B. Smith.
River Portal	Montrose	6,570	4	47.4[b]		79[b]	26	16[b]	4	41[b]	1.42		0.42	3.1	7	17	6	7		U. S. Reclamation Service
Sapinero	Gunnison	8,125	8	39.5		70	27	7	5	41	2.33		0.65	20.4	12	15	6	9	w.	W.F. Irving.
Shoshone	Garfield	6,110		51.4		82	25†	24	4†	46	0.75		0.31	2.0	7	11	9	10		Central Colo. Power Co.
Silt	...do	5,441	13																	W. S. Park.
Silverton (1)	San Juan	9,285	6	37.4		69	27	5	15	44	1.72		0.70	17.5	10	21	4	5	sw.	A. P. Root, jr.
Silverton (near) §	...do	9,400	3	34.4		64	27	3	15	40	0.60		0.30	7.0	3	13	11	6	sw.	San Juan P. & W. Co.
Spruce Lodge	Grand	9,600	2								1.93		0.53	23.0	10					H. J. Wills.
Steamboat Springs	Routt	6,683	7	43.6		76	26†	16	16	53	1.21		0.70	0.0	2	24	2	4		M. E. Houston.
Tacoma §	La Plata	7,300	3	43.7		72	24†	18	4†	39	1.04		0.35	0.0	7	17	5	8		San Juan P. & W. Co
Terminal Dam §	...do	8,300	3								0.79		0.44	8.2	7	17	4	9	s.	Do.
Uncompahgre Plateau	Montrose	8,400									0.46		0.20	7.0	4	10	19	1	sw.	Martin Esser.
Whitepine	Gunnison	9,500	10	33.7		63	28	− 5	4	42	0.90		0.50	10.0	3	11	12	7	s.	C. E. Macy.
Yampa	Routt	8,000	1								0.40		0.17	4.5	6	13	8	9	n.	Percy A. Hughes.
Utah.																				
Baker	San Juan	7,560	1								1.42		1.30	1.2	2	20	2	8	s.	Maude A. Palmer.
Basin	Grand	9,500	1								1.64		0.35	16.0	12	11	13	6	w.	E. H. Wolf.
Castle Dale	Emery	5,500	11	51.2[a]		85[a]	24†	21[a]	4	48[a]	0.00		0.00	0.0	0	19[a]	10[a]	0[a]		James Jeffs.
Emery	...do	6,260	10	50.6		82	26	19	3	41	0.00		0.00	0.0	0	8	2	20	n.	H. C. Wickman.
Escalante	Garfield	5,700	10	51.5		83	24	21	15	45	0.43		0.43	0.0	1	18	0	12		Geo. H. Barney.
Fort Duchesne	Uinta	5,000	22	51.4	+ 3.2	86	27	17	4	54	0.10	− 0.48	0.10	0.0	1	16	10	4	w.	B. F. Mudd.
Grayson	San Juan	5,750	6	50.8		80	25†	21	16	40	0.60		0.50	0.0	2	19	2	9	s.	Joseph A. Lyman.
Green River	Emery	4,080	13	57.7	+ 3.7	95	26	23	16	53	0.00	− 0.77	0.00	0.0	0	24	6	0	sw.	B. F. Miller.
Hanksville	Wayne										0.08		0.07	0.0	2	22	3	5	sw.	F. G. Weber.
Hite	Garfield	3,000	11	60.4		91	25†	33	4	43	0.12		0.10	0.0	3	18	12	0	s.	John P. Hite.
La Sal	San Juan	7,000	10	47.2[a]		76[a]	27	14[a]	4	35[a]	0.37		0.26	T.	3	12	8	10		Gertrude W. Carpenter.
Loa	Wayne	7,000	18	41.8	+ 1.2	72	27	7	4	40	0.00	− 0.64	0.00	0.0	0					Michael Hansen.
Mill Canyon	Washington	8,400																		J. A. Gardner.
Moab	Grand	4,000	21																	Henry Crouse.
Monticello	San Juan		2																	D. B. Perkins.
Orderville	Kane										0.04		0.02	0.0	2					F. A. Porter.
Price	Carbon	5,557																		C. A. Guiwits.
Ranch	Kane	6,700	9	46.2		78	24	15	4	47	0.44		0.20	0.0	3	21	9	0	n.	J. W. Seaman.
Saint George	Washington	2,880	29	61.1	+ 3.9	94	19†	30	5	57	T.	− 0.38	T.	0.0	0	16	13	1		Joseph T. Atkin.
Scofield	Carbon	7,625	2	37.4		58	1	20	7†	35	0.00		0.00	0.0	0	31	0	0		O. E. Jorgensen.
Springdale	Washington		3																	Wm. W. Flanigan.
Strawberry	Wasatch		4	43.5		72	26	11	4	37	1.06		0.65	10.5	5	11	12	7		U. S. Reclamation Service.
Sunnyside	Carbon	5,280	2								0.14		0.05	0.5	4					Henry Cullum.
Teasdale	Wayne	7,000	2																	Josiah Shurtz.
Theodore	Wasatch	5,507	5	50.0		83	27	18	15	48	0.03		0.03	T.	1	9	15	6	w.	M. M. Smith.
Tropic	Garfield	7,000	13	49.6[k]		84[k]	25	23[k]	4	41[k]										E. P. Bolton.

TABLE 1.—*Climatological data for April, 1910. District No. 9*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Utah—Cont'd.																				
Vernal	Uinta	5,050	15	52.0	+ 3.3	85	27	19	14†	51	0.00	− 0.78	0.00	0.0	0	22	5	3	.....	Joab Collier.
New Mexico.																				
Alma	Socorro	5,500	11	56.0	+ 1.7	92	27†	21	2	55	0.86	+ 0.29	0.60	0.0	3	12	14	4	nw.	M. A. Balke.
Aragon	...do	5,856	3	40.5[d]	.....	73	19†	11[e]	5	52[e]	0.71	.....	0.30	0.0	3	15	12	3	sw.	John R. Milligan.
Blackrock	McKinley	6,500	2	49.6	.....	79	28	17	4	43	0.65	.....	0.23	0.2	7	14	14	2	w.	Wm. J. Oliver.
Bloomfield	San Juan	5,500	15	52.4	+ 2.4	90	28	16	5	53	0.53	− 0.32	0.33	T.	3	16	12	2	sw.	Fred Le Clerc.
Cambray	Luna	4,215	11	.....	.....	.....	.....	.....	.....	.....	0.40	+ 0.14	0.40	0.0	1	18	12	0	w.	Southern Pacific Co.
Columbus	...do	4,054	...	.....	.....	92	27	34	2	47	0.09	.....	0.08	0.0	2	20	0	10	w.	El Paso & Southwest. R.R
Deming	...do	4,333	33	58.9	.....	94	29	35	1†	51	0.02	− 0.15	0.02	0.0	1	10	10	10	w.	Southern Pacific Co.
Dulce	Rio Arriba	6,767	12	47.2[a]	+ 4.0	80[a]	27	15[a]	5	54[a]	0.56	− 0.31	0.21	T.	5	11	10	9	w.	John M. Commons.
Fort Bayard	Grant	6,152	35	57.8	+ 4.5	86	24†	30	1†	36	0.55	+ 0.19	0.50	T.	3	27	3	0	w.	U. S. Gen'l. Hospital.
Fort Wingate	McKinley	6,997	46	50.2	+ 1.6	78	27†	12	4†	54	1.66	+ 0.67	1.00	4.0	4	15	6	9	sw.	Post Hospital.
Fruitland	San Juan	4,800	17	53.0	+ 1.6	87	27†	16	5	50	1.04	+ 0.61	0.90	T.	4	16	9	5	nw.	Cyril James Collyer.
Gage	Luna	4,486	3	59.8	.....	94	27†	31	16	48	0.04	− 0.24	0.04	0.0	1	20	5	5	w.	Southern Pacific Co.
Gila (near)	Grant	4,470	11	57.4	− 0.1	93	27	20	3	55	0.84	+ 0.47	0.60	0.0	4	.....	.....	.....	.....	Miss Cozella Clark.
Hachita	...do	4,504	...	.....	.....	.....	.....	.....	.....	.....	T.	.....	T.	0.0	0	21	7	2	sw.	El Paso & Southwest. R. R.
Haynes	Rio Arriba	6,600	...	.....	.....	.....	.....	.....	.....	.....	1.02	.....	0.25	1.0	7	23	4	3	nw.	Dr. John Roger Haynes.
Hermanos	Luna	4,451	...	.....	.....	.....	.....	.....	.....	.....	0.00	.....	0.00	0.0	0	20	10	0	w.	El Paso & Southwest. R. R.
Lordsburg	Grant	4,245	10	61.4	− 0.1	93	28	30	16	50	0.02	− 0.13	0.02	0.0	1	23	3	4	sw.	Southern Pacific Co.
Luna (near)	Socorro	7,300	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. B. Martin.
Manuelito	McKinley	6,252	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. H. F. Irick.
Mimbres	Grant	5,007	5	.....	.....	.....	.....	.....	.....	.....	0.58	.....	0.46	0.0	3	18	12	0	sw.	Chas. Dennis.
Pratt	...do	4,415	...	.....	.....	.....	.....	.....	.....	.....	0.00	.....	0.00	0.0	0	26	0	4	sw.	El Paso & Southwest. R. R.
Putnam	San Juan	6,200	...	.....	.....	.....	.....	.....	.....	.....	0.92	.....	0.41	0.0	6	21	9	0	sw.	Richard Wetherill.
Redrock	Grant	4,150	5	.....	.....	.....	.....	.....	.....	.....	0.72	.....	0.56	0.0	3	17	13	0	.....	Robert N. Woods.
Rodeo	...do	4,118	...	.....	.....	.....	.....	.....	.....	.....	0.10	.....	0.10	0.0	1	25	5	0	.....	El Paso & Southwest. R. R.
Rosa	Rio Arriba	6,000	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B. A. Candelaria.
Arizona.																				
Allaires Ranch	Cochise	4,184	14	.....	.....	.....	.....	.....	.....	.....	0.05	− 0.21	0.03	0.0	2	25	2	3	w.	Thos. Allaire.
Arisona Canal Dam	Maricopa	1,372	15	71.3	+ 3.4	101	19	48	15	43	0.14	− 0.26	0.14	0.0	1	14	12	4	s.	U. S. Reclamation Service.
Aztec	Yuma	492	12	65.8	+ 6.4	106	24	37	1	66	0.69	+ 0.48	0.49	0.0	2	25	2	3	w.	Southern Pacific Co.
Benson	Cochise	3,523	28	63.5	− 1.0	95	28	34	17	56	T.	− 0.14	T.	0.0	0	14	7	9	e.	Southern Pacific Co.
Bisbee	...do	5,500	20	59.6	+ 0.4	84	25†	34	16	33	0.07	− 0.37	0.05	0.0	2	20	8	2	e.	Rev. J. G. Pritchard
Bonita	Graham	4,916	...	.....	.....	.....	.....	.....	.....	.....	0.30	− 0.03	0.25	0.0	2	25	4	1	w.	A. Johnson & Co.
Bowie	Cochise	3,756	33	62.8	+ 1.3	96	27	36	1†	49	0.10	− 0.08	0.05	0.0	2	25	0	5	w.	Southern Pacific Co.
Buckeye	Maricopa	980	17	67.6	+ 1.7	103	19	37	5	61	0.12	− 0.14	0.12	0.0	1	26	3	1	sw.	H. E. Kell.
Canille	Santa Cruz	5,225	1	.....	.....	.....	.....	.....	.....	.....	0.45	.....	0.30	0.0	2	14	13	3	sw.	R. A. Rodgers.
Casa Grande	Pinal	1,396	28	73.1	+ 3.1	110	27	40	1	48	T.	− 0.15	T.	0.0	0	26	2	2	w.	Southern Pacific Co.
Cave Creek	Maricopa	1,523	3	66.8	.....	100	25	38	13†	53	0.15	.....	0.15	0.0	1	21	7	2	.....	E. A. Howard
Chin Lee	Apache	6,090	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Fr. L. Ostermann, O. F. M.
Chlarsons Mill	Graham	8,000	3	54.2	.....	85	26†	25	16	41	1.44	.....	0.47	3.5	6	18	10	2	.....	H. R. Chlarson.
Clifton	Graham	2,584	19	66.8	.....	92	19†	40	16	47	0.51	+ 0.08	0.38	0.0	4	22	7	1	.....	P. Reisinger.
Cline	Gila	2,300	10	63.1	+ 1.6	95	25†	35	5	58	0.08	− 0.43	0.04	0.0	2	15	12	3	sw.	W. M. Clanton.
Cochise	Cochise	4,219	11	58.4	+ 3.4	91	23†	25	1	57	0.25	+ 0.04	0.25	0.0	1	27	1	2	se.	Southern Pacific Co.
Columbia	Yavapai	1,900	11	69.2	.....	100	25	42	13	47	0.15	.....	0.15	0.0	1	11	15	4	se.	M. J. Nolan.
Congress	...do	3,688	14	67.4	+ 3.0	93	25	42	13	29	0.19	− 0.48	0.14	0.0	2	21	6	3	sw.	Congress Mine.
Courtland	Cochise	4,543	1	.....	.....	.....	.....	.....	.....	.....	0.00	.....	0.00	0.0	0	19	11	0	sw.	El Paso & Southwest. R. R.
Dos Cabezos	...do	5,250	2	57.7	.....	90	27†	30	2†	49	0.68	.....	0.57	0.0	2	21	6	3	w.	N. Erickson.
Douglas	...do	3,930	7	63.1	.....	97	28	30	2†	55	0.02	.....	0.02	0.0	1	23	5	2	sw.	Dr. F. T. Wright.
Dudleyville	Pinal	2,204	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. F. Cook.
Fairbank	Cochise	3,862	1	.....	.....	.....	.....	.....	.....	.....	0.00	.....	0.00	0.0	0	20	0	10	.....	El Paso & Southwest. R. R.
Flagstaff (1)	Coconino	6,907	18	44.6	+ 2.4	76	26	20	1	44	0.52	− 1.11	0.33	3.3	5	13	10	7	sw.	U. S. Weather Bureau.
Florence	Pinal	1,504	11	71.3	+ 3.9	104	19	46	29	50	0.00	− 0.40	0.00	0.0	0	19	4	7	w.	Pacific & Eastern R. R.
Fort Apache	Navajo	5,200	39	53.8	+ 1.8	86	26	23	16	49	0.77	+ 0.02	0.34	0.0	4	24	2	4	e.	Post Hospital.
Fort Huachuca	Cochise	5,100	25	63.8	+ 4.1	90	25†	37	16	39	T.	− 0.27	T.	0.0	0	29	0	1	se.	Post Hospital.
Fort Mohave	Mohave	604	39	72.2	+ 1.2	105	25	43	1†	53	0.06	− 0.20	0.06	0.0	1	22	7	1	.....	A. F. Duclos.
Gilabend	Maricopa	737	19	73.8	+ 3.2	11[a]	25	43	1†	52	T.	− 0.15	T.	[illegible]	0	24	6	0	sw.	Southern Pacific Co.
Globe	Gila	3,525	9	63.6	.....	92	26†	37	5	45	0.19	.....	0.08	0.[illegible]	4	18	11	1	nw.	Dr. B. G. Fox.
Grand Canyon	Coconino	6,866	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Grand Canyon Ry.
Greer	Apache	9,200	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. M. Butler.
Hereford	Cochise	4,180	1	.....	.....	.....	.....	.....	.....	.....	T.	.....	T.	0.0	0	18	11	1	.....	El Paso & Southwest. R. R.
Holbrook	Navajo	5,069	21	52.8	− 0.5	86	18†	22	4	52	0.55	+ 0.01	0.45	0.0	3	24	2	4	.....	T. Larson.
Intake	Gila	2,230	3	.....	.....	.....	.....	.....	.....	.....	0.12	.....	0.06	0.0	3	25	5	0	w.	A. J. Robinson.
Jerome	Yavapai	4,743	13	61.0	+ 2.3	86	25	35	4†	30	0.43	− 0.59	0.25	0.0	3	17	8	5	w.	Dr. L. A. Hawkins.
Keams Canyon	Navajo	.....	6	49.8	.....	88	30	15	4	55	1.50	.....	0.70	0.0	3	17	13	0	se.	L. R. Ballard.
Kingman	Mohave	3,326	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. R. Gooding.
Lewis Springs	Cochise	4,029	1	.....	.....	.....	.....	.....	.....	.....	0.01	.....	0.01	0.0	1	19	9	2	se.	El Paso & Southwest. R. R.
Maricopa	Pinal	1,186	33	72.8	+ 1.9	109	19	41	13	56	0.11	− 0.07	0.11	0.0	1	22	8	0	.....	Southern Pacific Co.
Mesa	Maricopa	1,244	14	74.4	+ 7.7	106	18	41	12	59	0.05	− 0.36	0.03	0.0	2	18	10	2	sw.	C. L. Diehl.
Mohawk Summit	Yuma	538	9	75.2	.....	110	24	42	12	45	0.04	.....	0.04	0.0	1	28	0	2	e.	Southern Pacific Co.
Naco	Cochise	4,579	1	.....	.....	.....	.....	.....	.....	.....	0.00	.....	0.00	0.0	0	29	1	0	sw.	El Paso & Southwest. R. R.
Natural Bridge	Gila	4,990	21	.....	.....	.....	.....	.....	.....	.....	0.71	− 0.25	0.45	T.	2	16	12	2	sw.	D. G. Goodfellow.
Nogales	Santa Cruz	3,830	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Wallace & Summerhayes.
Oracle	Pinal	4,500	18	60.2	+ 0.4	81	8†	34	4	42	0.38	− 0.17	0.38	0.0	1	21	8	1	.....	W. H. Winters.
Osborn	Cochise	4,676	1	.....	.....	.....	.....	.....	.....	.....	0.03	.....	0.03	0.0	1	24	2	4	nw.	El Paso & Southwest. R. R.
Paradise	Cochise	3,940	4	55.0	.....	88	28	24	16	47	T.	.....	T.	0.0	0	14	9	7	sw.	J. C. Hancock.
Parker	Yuma	345	13	74.0	+ 3.8	110	24†	40	16	58	0.22	+ 0.11	0.21	0.0	2	22	6	2	sw.	Dr. H. V. King.
Payson	Gila	5,500	1	55.2	.....	87	18†	26	5	54	0.75	.....	0.43	1.5	3	16	8	6	sw.	M. McDonald.
Phoenix (1)	Maricopa	1,108	15	76.0	+ 3.4	100	19	44	13	44	0.29	− 0.14	0.29	0.0	2	20	10	0	e.	U. S. Weather Bureau.
Pinal Ranch	Pinal	4,520	15	.....	.....	.....	.....	.....	.....	.....	0.50	− 0.41	0.40	[illegible]	3	24	3	3	.....	Irion & Craig.
Pinto	Apache	5,660	5	.....	.....	.....	.....	.....	.....	.....	0.12	.....	0.[illegible]	[illegible]	3	20	4	6	sw.	Mrs. C. F. Henning.
Prescott	Yavapai	5,320	45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. J. W. Flinn.
Quartzsite	Yuma	800	2	71.6	.....	105	25	42	1†	53	0.38	.....	0.36	0.0	2	26	4	0	n.	W. E. Scott.
Redrock	Pinal	1,856	2	72.5	.....	103	25	44	17	50	0.20	.....	0.20	0.0	1	11	17	2	sw.	W. J. Crowell.
Roosevelt	Gila	2,175	6	70.2	.....	97	25†	46	13	40	0.28	.....	0.28	0.0	1	22	6	2	.....	W. A. Schoenfeld.
Sacaton	Pinal	.....	2	70.2	.....	106	19	39	16	56	T.	.....	T.	0.0	0	23	7	0	.....	M. F. Gilman.
Saint Johns	Apache	5,650	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Shreeve.
Saint Michaels	...do	6,950	22	47.2	+ 1.1	79	27†	18	5†	44	0.38	− 0.30	0.32	T.	2	19	4	7	sw.	Rev. A. Weber, O. F. M.
Salome	Yuma	1,875	3	56.6	.....	97	27	35	6	48	0.72	.....	0.43	0.0	2	17	10	3	n.	Mrs. M. B. Swartz.
San Carlos	Gila	2,456	28	63.4	+ 1.0	98	26†	34	14†	56	0.09	− 0.29	0.09	0.0	1	18	10	2	w.	F. S. Thomas.
San Simon	Cochise	3,609	26	64.0	− 0.4	95	19†	32	15	55	0.03	− 0.07	0.02	0.0	2	21	8	1	w.	Southern Pacific Co.
Seligman	Yavapai	5,219	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. W. Dougherty.
Sentinel	Maricopa	685	11	73.2	+ 2.5	104	19†	47	1†	53	0.20	+ 0.02	0.20	0.0	1	18	9	3	.....	Southern Pacific Co.
Showlow	Navajo	6,300	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. Woolford.
Silverbell	Pima	2,650	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Imperial Copper Co.
Supai	Coconino	3,200	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. E. Coe.
Tempe	Maricopa	1,165	6	69.4	.....	101	19	42	16	48	0.01	.....	0.01	0.0	1	29	1	0	w.	F. H. Simmons

TABLE 1.—*Climatological data for April, 1910. District No. 9*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Arizona—Cont'd.																				
Thatcher	Graham	2,800	7	60.0	.....	95	28	28	2	56	0.20	.....	0.10	0.0	3	15	15	0	w.	Prof. J. H. Larson.
Tombstone	Cochise	4,550	11	63.2	+ 1.4	92	27†	35	15	40	0.14	− 0.10	0.14	0.0	1	21	8	1	.....	F. N. Walcott.
Truxton	Mohave	4,197	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. B. Atkinson.
Tuba	Coconino	4,500	12	53.8	.....	85	25†	25	4	50	0.42	− 0.10	0.30	0.0	3	11	14	5	ne.	G. H. Kraus.
Tucson	Pima	2,390	30	66.8	+ 1.3	100	27	35	16	53	0.08	− 0.25	0.07	0.0	2	10	18	2	nw.	University of Arizona.
Vail	....do.	3,421	11	67.4	− 0.6	99	26	36	16	47	0.61	− 0.35	0.01	0.0	1	19	10	1	nw.	Southern Pacific Co.
Walnut Grove	Yavapai	3,649	18	.....	.....	.....	.....	.....	.....	.....	0.27	− 0.24	0.27	0.0	1	16	13	1	.....	J. O. Carter.
Wickenburg	Maricopa	2,072	....	65.1	+ 3.6	100	25	36	15	51	0.03	− 0.36	0.03	0.0	1	26	1	3	.....	Santa Fe, Presc't & Phoenix
Willcox	Cochise	4,164	28	58.1	− 2.1	92	26	32	4	55	0.10	− 0.04	0.10	0.0	1	16	11	3	s.	Southern Pacific Co.
Williams	Coconino	6,750	8	49.2	+ 1.1	83	26	19	4†	50	0.82	− 0.15	0.70	5.0	2	16	13	1	.....	E. J. Nordyke.
Winslow	Navajo	4,853	5	57.4	.....	94	27	22	4	55	0.20	.....	0.20	0.0	1	27	0	3	.....	J. F. Bauer.
Yarnell	Yavapai	4,700	12	.....	.....	.....	.....	.....	.....	.....	0.02	− 0.98	0.02	0.0	1	8	12	10	s.	E. L. Bartholomew.
Yuma	Yuma	141	29	73.3	+ 3.2	106	24	47	2	50	T.	− 0.10	T.	0.0	0	26	2	2	w.	U. S. Weather Bureau.
Nevada.																				
Las Vegas	Clark	.....	....	63.9	.....	99	24†	29	2†	57	T.	.....	T.	0.0	0	16	12	2	nw.	Salt Lake Route.
Logan	....do.	.....	....	66.2	.....	100	26	35	5	53	0.07	.....	0.06	0.0	2	12	15	3	s.	Ray M. Filcher.

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
‖ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for April, 1910. District No. 9, Colorado Valley.*

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Wyoming.																																	
Daniel	Green											T.		T.	T.															T.	.10		0.10
Dixon	Snake																																
Eden	Green			T.							T.			.09	.08	T.						.05										0.22
Green River	do			T.									T.	T.	.02	.07														.01		0.10
Kendall	do																																
Pinedale	do													.02																		0.02
Rambler	Snake			T.	.43		T.				T.		T.	.03	.30	.08					T.									.28	.80		1.92
Willow Creek Cabin	Green																																
Colorado.																																	
Ashcroft	Grand			.25	.05			T.			T.		.15	1.20	.54	.10						.20									.12		2.61
Breckenridge	do			.07	T.			T.	T.		T.	T.	.40	T.	.25	.19						T.									.07		0.98
Cascade	San Juan			.04			T.		.04	.08					.53																		0.69
Chromo	do																																
Cochetopa	Gunnison			.06								T.		.38	.55	.04						.02											1.05
Collbran	Grand			.22			T.				T.		T.	.15	.13							.31									.16		0.97
Columbine	Yampa			.49	.32									T.	.24							.12									.25		1.42
Columbine Ranch	Gunnison			.08										.22	T.							.17											0.47
Corona[]	Grand				.61	.26		.14				.01	.01	.10	.33	.49	.15					.30	.13								.21		2.74
Crawford	Gunnison				.12							.12		.28								.03											0.55
Crested Butte	do			.40				.35						.47	.40	T.						.11								.10	.05		1.88
De Beque	Grand			.16			.07					.01		.02																			0.20
Delta	Gunnison						T.				T.		.06	.20	T.																		0.26
Dillon	Grand			.05						T.	T.	T.						.11	T.	.12		T.									T.		0.28
Dolores	Dolores																																
Durango	San Juan	T.		T.			T.	.04	.15	.09	.08	.01		.18																			0.55
Eagle	Grand			.12								T.																			.40		0.52
Eureka	San Juan	T.	.21	T.			T.			T.	T.	.24	.31	.25	.08	T.				.10						T.					T.		1.19
Fraser[]	Grand				T.			T.			T.	T.		T.	.20	T.	T.					.30	.10								.10		0.70
Fruita	do			.11			.01						T.	.05	T.	T.						.03								T.	T.		0.20
Gladstone	San Juan							T.	T.	T.	T.	.02	.13	.32	.83	T.						.39	T.			T.					T.		1.69
Glenwood Springs	Grand																																
Grand Junction	do			.16			.04	T.					T.	.02	T.						.02	.08								T.	T.		0.32
Grandlake	do																																
Grand Valley	do			.06			.03	.01			T.	T.	T.	.10	.01							.14									.07		0.42
Gunnison	Gunnison			.03								.02		.48	.08													T.			.04		0.65
Horsefly	do			.29			.18				.07	.11		.20	.40	T.						.16											1.41
Ironton	do			.67								.07	.03	.25	.63	.29						.23											2.17
Kremmling	Grand			.05	T.			T.			.04		.03	.30	.25							.33								.01	.14		1.15
Lake City	Gunnison			.14	.04							.01	.17	.52	.57	T.						.06											1.51
Lay	Yampa			.50	.20								T.		T.							.25									T.		0.95
Leal	Grand			.10							T.			.40								.40									.30		1.20
Lujane	Gunnison			.10								.05		.35	.35							.31											1.16
Mancos	San Juan			.05				.38	T.	.03		.05		1.36	T.																		1.87
Marble	Grand			.20	.05							.02		.35	.30	.10						.22								.06	.05		1.35
Marshall Pass	Gunnison			.12					T.				T.	.28	.23	.17						T.											0.80
Meeker	White			.20								.02		.01	.01							.55								*	.29		1.08
Montrose	Gunnison													.54	.06																		0.20
Nast	Grand			.19	T.			T.						.48	.22	T.						.21									.18		1.68
Pagoda	Yampa				.25						.08	T.		T.	T.							.40								.30			1.03
Pagosa Springs	San Juan			T.			T.	T.	.10	.08		T.	T.	.39	.18	.07																	0.82
Paonia	Gunnison			.11					.12	T.				.14	.15							.05											0.57
Parshall	Grand			.33										.33							.30										.03		0.99
Pitkin	Gunnison			T.					.05				.10	.13	.17																		0.45
Rangely	White			.03						T.	T.		.02	.23	T.	T.						.10								T.			0.38
Redcliff	Grand			T.	.31	T.						.10		T.	.40	.30						.28						.04	T.	*	.62			2.05
Rico	Dolores			.07	.06		T.	.07	.08	.09		.08	.03	.19	.49	.02						T.											1.18
River Portal	Gunnison			.30			.02			.01			.42	.40	.13						.14												1.42
Sapinero	do			.55	.16			T.	T.	.01	.01	.02	.01	.65	.59	.01						.30								.01	.01		2.33
Shoshone	Grand			.22	T.		.05				.01		.01		.02							.31									.13		0.75
Silverton (1)	San Juan			.16	.05			.02	.02	.02			.02	.45	.70	.10						.18											1.72
Silverton (near)	do			.20				T.		T.	T.	T.	*	.30	.10							T.											0.60
Spruce Lodge	Grand			.06	.06	.02					.09	.15	.12		.53	.10						.44									.36		1.93
Steamboat Springs	Yampa													.51																	.70		1.21
Tacoma	San Juan			T.				T.	.02	.15	.29	.03	.05	.35	.15																		1.04
Terminal Dam	do							T.	.05	.05	.02	.02	.01	.20	.44																		0.79
Uncompahgre Plateau	Gunnison			.14				T.					T.	.07	.20	.05						T.											0.46
Whitepine	do			.20										.20	.50																		0.90
Yampa	Yampa			.04							.03				.04	.06						.06									.17		0.40
Utah.																																	
Baker	Colorado			.12									1.30	T.	T.														T.				1.42
Basin	Grand			.30	.08		.25			.35	.10	.03	.02	.15	.11	.03						.10									.12		1.64
Castle Dale	Green																																0.00
Emery	Colorado																																0.00
Escalante	do													.43																			0.43
Fort Duchesne	Green											.10	T.	T.		T.																	0.10
Grayson	San Juan							T.		.10				.50																			0.60
Green River	Green																																0.00
Hanksville	Colorado																	.07				.01											0.08
Hite	do						T.		.01	T.			.01	.10	T.																		0.12
La Sal	Grand						T.	T.	T.	.26	T.		T.	.05	T.															.06	T.		0.37
Los	Colorado																																0.00
Mill Canyon	do																																
Moab	Grand																																
Monticello	do																																
Orderville	Colorado						.02			.02		T.	T.	T.																			0.04
Price	Green																																
Ranch	Colorado						.20			.13	T.		.11																				0.44
St. George	do												T.																				T.
Scofield	Green																																0.00
Springdale	Colorado																																
Strawberry	Green			.65	.10							T.	.01		.15							.15											1.06
Sunnyside	do									.02			.05	.02	.05	T.																	0.14
Theodore	do			T.							.03	T.		T.																T.			0.03
Tropic	Colorado																																
Vernal	Green																																0.00
New Mexico.																																	
Alma	Gila						T.			.60			T.	.14		.12																		0.86
Aragon	do						T.	.24	.17	.30	T.																							0.71
Blackrock	Little Colorado				.02		.14	.23			.02	.20	.02		.02																			0.65
Bloomfield	San Juan	T.							.15	.05				.33	T.	T.																		0.53
Cambray	Mimbres								.40																									0.40
Columbus	Gila							T.	.01	.08																								0.09
Deming	Mimbres								*	.02																								0.02
Dulce	San Juan				T.			.14	.04	.12				.21	.05																			0.56

TABLE 2.—*Daily precipitation for April, 1910. District No. 9*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
New Mexico—Cont'd.																																	
Fort Bayard	Mimbres					T.			.50	.03			T.	.02																			0.55
Fort Wingate	Little Colorado			.36					1.00	.10	.20					T.																	1.66
Fruitland	San Juan							.02	.10	.02				.90	T.																		1.04
Gage	Mimbres									.04																							0.04
Gila (near)	Gila						.04		.06	.60					T.	.14																	0.84
Hachita	...do							T.		T.																							T.
Haynes	San Juan				.10			.18	.13	.23	T.			.12	.18	.06																	1.02
Hermanes	Gila																																0.00
Lordsburg	...do						.02																										0.02
Luna (near)	...do																																
Manuelito	Little Colorado																																
Mimbres	Mimbres								.08	.46				.04																			0.58
Pratt	Gila																																0.00
Putnam	San Juan				.01			.09	.01	.41				.04	.36																		0.92
Redrock	Gila						.12			.56		.04																					0.72
Rodeo	...do						T.	T.	.10																								0.10
Rosa	San Juan																																
Arizona.																																	
Allaires Ranch	Sonora	T.					.02		.03																								0.05
Arizona Canal Dam	Salt												.14																				0.14
Aztec	Gila												.20	.49																			0.69
Benson	San Pedro						T.						T.	T.																			T.
Bisbee	...do						T.	T.	.02	.05			T.	T.																			0.07
Bonita	Mimbres						.25							.05																			0.30
Bowie	Gila						.05	.05																									0.10
Buckeye	...do												.12																				0.12
Canille	San Pedro						.30	T.	T.	T.			T.	.15																			0.45
Casa Grande	Gila													T.																			T.
Cave Creek	Verde												.15																				0.15
Chin Lee	San Juan																																
Chiarsons Mill	Gila					.15	.47	.10	.33				.07	.32																			1.44
Clifton	...do						.07		.38	.04			T.	.02																			0.51
Cline	Salt												.04	.04																			0.08
Cochise	Desert						.25																										0.25
Columbia	Agua Fria							T.					.15	T.																			0.15
Congress	Hassayampa						T.	T.					.14	.05																			0.19
Courtland	White																																0.00
Dos Cabezos	Desert						.11		.57																								0.68
Douglas	Sonora						T.	.02		T.																							0.02
Dudleyville	Gila																																
Fairbank	San Pedro																																0.00
Flagstaff (1)	Little Colorado						.05	T.	.02	.01			.11	.33	T.																		0.52
Florence	Gila																																0.00
Fort Apache	Salt						.18		T.				.15	.34	.10	T.																	0.77
Fort Huachuca	San Pedro						T.	T.							T.																		T.
Fort Mohave	Colorado												.06	T.																			0.06
Gilabend	Gila													T.																			T.
Globe	Salt						.03			.08			.04	.04																			0.19
Grand Canyon	Colorado																																
Greer	Little Colorado																																
Hereford	San Pedro							.05		.05			.45																				0.55
Holbrook	Little Colorado																																0.12
Intake	Salt						.01			.06			.05																				0.43
Jerome	Verde						T.		T.				.25	.15	.03																		1.50
Keams Canyon	Little Colorado						T.		.40	.70			T.	.40																			
Kingman	Colorado																																0.01
Lewis Springs	San Pedro						T.	.01																									0.11
Maricopa	Gila												.11																				0.05
Mesa	Salt						.03		T.				.02																				0.04
Mohawk Summit	Gila												.04																				0.00
Naco	San Pedro																																0.71
Natural Bridge	Verde												.45	.26																			
Nogales	Santa Cruz																																0.38
Oracle	San Pedro												.38																				0.03
Osborn	...do						T.	.03																									T.
Paradise	Desert							T.		T.				T.																			0.22
Parker	Colorado												.21	.01																			0.75
Payson	Verde						.10	T.	T.				.43	.22	T.																		0.29
Phoenix (1)	Salt						T.	T.					.27	.02																			0.50
Pinal Ranch	...do							T.	.06				.40	.04																			0.12
Pinto	Little Colorado		T.					.03		T.			.05	.04																			
Prescott	Hassayampa																																0.38
Quartzsite	Colorado												.36	.02																			0.20
Redrock	Santa Cruz						T.						.20																				0.28
Roosevelt	Salt						T.			T.			.28	T.																			T.
Sacaton	Gila													T.																			
St. Johns	Little Colorado																																0.38
St. Michaels	...do		T.				T.	T.	T.	.32	T.		T.	.06	T.	T.																	0.72
Salome	Colorado								T.	T.			.29	.43																			0.09
San Carlos	Gila						.09	T.	T.																								0.03
San Simon	...do						.01	.02																									
Seligman	Verde														.20																		0.20
Sentinel	Gila																																
Showlow	Little Colorado																																
Silverbell	Santa Cruz																																
Supai	Colorado												.01																				0.01
Tempe	Salt												.05																				0.20
Thatcher	Gila			.10	T.		.05	T.	T.	T.		T.																					0.14
Tombstone	San Pedro								.14																								
Truxton	Little Colorado						.03			T.			T.	.30	.09																		0.42
Tuba	...do						.01					T.	T.	.07																			0.08
Tucson	Santa Cruz													.01																			0.01
Vail	...do						T.	T.					.27																				0.27
Walnut Grove	Hassayampa												.03																				0.03
Wickenburg	...do						.10																										0.10
Willcox	Desert						.12		.70				T.																				0.82
Williams	Colorado						T.							.20																			0.20
Winslow	Little Colorado					.02	T.	T.					T.																				0.02
Yarnell	Hassayampa																																T.
Yuma	Colorado																																
Nevada.																																	T.
Las Vegas	Colorado					T.										T.																	0.07
Logan	...do												.06	.01																			

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 9, Colorado Valley.*

Date.	Wyoming.				Colorado.										Utah.										New Mexico.			
	Daniel.		Green River.		Durango.		Grand Junction.		Gunnison.		Meeker.		Steamboat Springs.		Emery.		Fort Duchesne.		Hite.		Moab.		St. George (Experiment station).		Fort Bayard.		Fort Wingate.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	55	25	65	24	61	27	67	35	50	27	65	22	59	18	59	20	67	24	75	37	.....	.....	78	32	62	30	66	28
2	48	20	64	35	62	26	70	35	54	22	65	24	60	23	53	25	70	30	71	40	.....	.....	78	38	67	37	66	18
3	41	13	56	28	55	24	59	32	45	24	61	25	54	23	64	19	60	33	54	37	.....	.....	70	45	65	35	63	39
4	47	11	50	18	50	24	52	28	46	25	42	22	54	18	59	32	55	17	58	33	.....	.....	67	32	67	38	62	12
5	51	18	63	24	59	22	62	32	48	25	57	19	55	20	56	31	62	22	62	35	.....	.....	76	30	68	39	54	36
6	53	17	61	24	51	30	53	37	56	25	58	24	57	20	63	32	66	27	64	43	.....	.....	67	49	65	38	54	33
7	57	23	63	26	58	37	68	35	47	28	61	28	57	20	66	32	67	29	71	45	.....	.....	79	36	66	35	59	34
8	58	24	71	25	60	36	74	42	60	25	67	24	65	22	67	34	71	28	65	44	.....	.....	84	39	64	37	53	35
9	63	23	71	30	53	36	66	42	60	25	64	30	66	21	68	32	71	31	69	47	.....	.....	80	47	63	35	49	36
10	59	25	69	31	59	31	69	46	60	25	64	28	62	36	62	30	74	33	77	47	.....	.....	83	39	71	40	58	41
11	63	23	70	31	62	34	70	45	64	27	61	27	66	36	65	34	70	34	79	45	.....	.....	76	34	72	45	63	35
12	60	25	68	33	66	41	66	50	65	25	63	29	64	29	58	40	64	43	74	53	.....	.....	72	45	68	35	67	40
13	51	33	62	33	48	37	64	44	60	32	59	31	57	32	55	29	68	33	73	49	.....	.....	77	48	68	32	60	34
14	41	23	47	25	45	32	49	36	57	29	49	23	40	26	45	35	59	33	57	44	.....	.....	67	41	62	30	64	31
15	41	13	49	23	45	25	48	31	35	8	42	22	36	22	65	22	50	29	61	39	.....	.....	66	40	65	33	65	22
16	50	19	67	26	61	19	61	26	42	16	60	12	59	16	62	31	74	20	72	36	.....	.....	79	31	68	35	65	26
17	59	26	70	26	69	27	73	31	47	27	66	21	62	23	69	34	78	28	82	40	.....	.....	87	35	73	39	66	12
18	62	22	74	26	71	34	77	41	61	28	68	21	65	21	71	34	76	30	85	43	.....	.....	90	37	79	45	65	31
19	71	22	74	33	73	35	79	46	67	27	75	35	74	21	73	35	81	30	86	45	.....	.....	94	37	79	47	75	34
20	70	26	77	40	73	35	82	49	71	23	74	33	72	27	74	38	82	35	87	44	.....	.....	86	49	82	50	76	42
21	60	23	65	37	60	35	62	44	69	24	65	35	66	32	76	39	65	44	84	46	.....	.....	82	39	83	47	75	34
22	64	22	70	34	69	29	73	39	70	20	68	26	61	22	78	35	75	29	83	42	.....	.....	87	38	81	48	76	32
23	65	15	76	30	75	35	76	40	68	23	68	29	64	25	73	36	78	32	84	45	.....	.....	93	40	82	49	75	31
24	70	20	78	36	73	38	81	46	74	24	73	36	72	24	75	32	80	31	89	49	.....	.....	93	41	86	54	76	37
25	76	31	80	33	74	38	83	48	72	26	76	31	74	25	78	40	83	33	91	50	.....	.....	94	41	86	52	76	39
26	78	35	81	33	70	37	83	52	75	42	75	32	76	26	82	41	84	37	91	51	.....	.....	93	42	82	53	72	34
27	74	27	82	39	78	39	85	55	74	34	80	32	76	26	81	46	86	38	87	50	.....	.....	93	56	83	54	78	52
28	70	30	78	44	76	38	84	53	74	28	76	35	76	28	72	40	81	38	88	51	.....	.....	86	53	85	52	78	43
29	51	25	69	35	69	36	72	50	76	29	65	34	63	32	75	42	75	42	82	58	.....	.....	83	50	84	53	78	48
30	58	23	58	26	67	33	70	43	72	33	58	29	53	32	78	40	65	34	82	50	.....	.....	83	40	83	47	75	35
31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mns	58.9	23.1	67.6	30.3	63.1	32.3	69.3	41.1	60.6	25.9	64.2	27.3	62.2	24.9	67.6	33.7	71.2	31.6	76.1	44.6	.....	.....	81.4	40.8	73.6	42.1	67.0	33.5

Date.	Arizona.																						Logan, Nev.	
	Bisbee.		Flagstaff.		Fort Apache.		Grand Canyon.		Parker.		Phoenix.		Prescott.		St. Michaels.		San Carlos.		Tucson.		Yuma.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	65	39	56	20	69	27	.....	.....	93	41	81	49	.....	.....	59	20	78	46	80	49	90	49	82	37
2	68	42	56	24	69	29	.....	.....	91	44	82	48	.....	.....	62	27	82	38	82	42	90	47	83	41
3	66	48	51	30	68	30	.....	.....	87	52	80	51	.....	.....	61	22	79	36	80	49	83	48	80	43
4	65	41	48	24	65	35	.....	.....	86	52	76	52	.....	.....	45	20	76	41	77	44	82	54	71	39
5	68	43	58	21	70	25	.....	.....	82	42	81	48	.....	.....	62	18	79	35	82	39	83	53	79	35
6	65	48	46	31	63	41	.....	.....	86	60	77	58	.....	.....	60	35	73	55	82	55	83	58	76	35
7	65	43	57	26	66	36	.....	.....	93	49	81	51	.....	.....	54	34	79	46	80	46	88	52	82	45
8	67	43	55	29	71	33	.....	.....	94	49	84	52	.....	.....	55	33	82	41	84	44	90	54	88	45
9	68	43	58	30	69	42	.....	.....	95	52	85	60	.....	.....	56	34	82	41	83	55	90	53	85	53
10	72	46	62	29	73	34	.....	.....	94	55	86	56	.....	.....	65	31	85	41	86	41	91	51	87	50
11	73	48	58	28	79	35	.....	.....	87	55	81	55	.....	.....	65	32	86	41	86	51	76	55	80	53
12	66	46	49	25	63	35	.....	.....	75	51	64	48	.....	.....	65	36	75	43	68	46	64	49	80	48
13	55	36	42	25	44	31	.....	.....	83	52	66	44	.....	.....	47	30	59	46	69	45	81	47	81	45
14	69	41	50	29	62	36	.....	.....	87	56	77	48	.....	.....	45	29	68	34	81	41	87	50	79	41
15	62	38	46	27	55	28	.....	.....	79	59	73	48	.....	.....	45	18	77	35	73	46	80	57	72	44
16	61	34	59	29	66	23	.....	.....	91	40	77	45	.....	.....	57	23	76	41	77	35	86	49	82	37
17	75	42	66	22	76	28	.....	.....	103	45	89	48	.....	.....	66	25	90	34	91	38	97	47	92	43
18	79	49	70	26	81	32	.....	.....	107	50	96	54	.....	.....	70	29	94	39	94	43	102	53	96	44
19	82	50	74	30	82	37	.....	.....	105	56	100	56	.....	.....	74	30	97	43	94	45	103	54	97	51
20	83	51	69	31	83	42	.....	.....	99	58	92	60	.....	.....	73	34	95	45	94	49	97	54	91	47
21	79	51	63	27	73	36	.....	.....	92	59	92	58	.....	.....	62	32	90	44	90	45	97	64	85	43
22	70	52	69	35	79	34	.....	.....	104	49	93	65	.....	.....	67	29	87	46	89	53	102	68	92	44
23	75	51	71	29	82	35	.....	.....	108	55	97	60	.....	.....	73	32	93	41	95	55	105	63	95	50
24	79	52	75	35	80	41	.....	.....	110	54	98	59	.....	.....	75	32	94	44	96	52	106	63	97	49
25	84	51	75	33	85	42	.....	.....	110	54	99	61	.....	.....	74	33	97	43	99	56	102	61	98	48
26	83	58	76	37	86	43	.....	.....	109	63	97	64	.....	.....	76	39	98	47	98	54	103	58	100	47
27	83	56	72	34	85	41	.....	.....	105	67	95	62	.....	.....	79	41	98	46	100	53	102	61	98	58
28	84	58	69	32	84	42	.....	.....	100	60	92	63	.....	.....	79	38	97	47	97	54	96	59	90	56
29	80	56	62	35	75	40	.....	.....	96	62	85	61	.....	.....	75	39	88	49	92	53	91	66	88	49
30	78	49	64	26	76	35	.....	.....	96	52	89	55	.....	.....	70	37	89	37	90	45	92	60	87	43
31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Means	72.3	46.8	60.7	28.6	72.6	34.9	.....	.....	94.9	53.1	85.5	54.6	.....	.....	63.9	30.4	84.8	42.0	86.3	47.4	91.3	55.2	86.4	46.1

Climatological Data for April, 1910.

DISTRICT No. 10, GREAT BASIN.

ALFRED H. THIESSEN, District Editor.

GENERAL CLIMATOLOGICAL CONDITIONS.

The warm, dry weather of March continued through April in the Great Basin. Temperatures were uniformly high, and at many places maximum temperature records for this month were broken. April is usually a comparatively wet month, but during this month, while the showers were quite frequent, the precipitation averaged much below normal.

Storms were frequent, but none were attended by heavy rains; there were, however, some very high winds. On April 1 a storm was central over Nevada, while another was approaching this country from Canada in the Northwest. These 2 storms coalesced, resulting in high winds on the evening of the 2d. The following high wind velocities were recorded: Salt Lake City, Utah, 60 miles from the north, this rate was equaled only once before during April; Winnemucca, Nev., 36 miles from the southwest; and Tonopah, Nev., 56 miles from the northwest. On the 13th very nearly the same barometric conditions were again observed, and 32 miles of wind from the north was registered at Salt Lake City, Utah, and again on the 14th. Other moderately high winds were recorded at Reno, Nev., on the 19th, at Salt Lake City, Utah, on the 20th, and at Modena, Utah, on the 28th.

TEMPERATURE.

The average temperature for the district was about 51°, which is nearly 4° above the normal, and ranged from 42.8° at Glen Alpine Springs, Cal., to 65.4° at Jean, Nev. Nearly all stations having normals showed plus departures, varying from 2° to 7°. The greatest plus departures occurred in north-central Nevada, and the least in Idaho and in the extreme eastern portion of Nevada.

The month opened warm in all parts of the district. On the 3d there was a decided fall in temperature, which continued until the 5th. A few stations in Utah and most of the stations in Nevada reported their lowest temperatures for the month during this period. Freezing temperatures were recorded at most stations. The lowest was 8° at Tecoma, Nev., on the 5th. After this date the weather grew warmer, and moderate temperatures prevailed until the 13th which marked the beginning of another cool spell. This period of cold weather, however, lasted but a few days, the temperatures fell quite low, except in western Nevada. Considerable damage was sustained, especially where the vegetation was not protected artificially. At Christmas Lake, Oreg., the temperature fell to 11°, which was the lowest temperature recorded at this time. High temperatures prevailed in all localities for the remainder of the month, and the maximum was reached on the 23d or 24th in the western part of the district, and on the 26th and 27th in the eastern portion. At Border, Wyo., 78° was recorded on the 25th and 26th, which was 4° higher than any previous April temperature on record. At many other stations the maximum temperature records were broken. The highest for the month was 95° at Jean, Nev., on the 24th; the next highest was 93° at Provo, Utah, on the 26th.

PRECIPITATION.

The average precipitation for the district was 0.37 inch, which is about 0.80 inch below the normal. The distribution, as usual, was very uneven, the largest amounts having occurred in the northeastern portion of the district, and the least in Nevada and southern Utah, and ranged from 1.80 inch at Glen Alpine Springs, Cal., to zero at 3 stations in Utah and 5 in Nevada. Every station reported minus departures.

The first day of the month was fair, except at North Fork, Nev., where 1.00 inch precipitation was recorded. This was the next largest 24-hour amount, the largest being 1.05 inch at Glen Alpine Springs, Cal., on the 28th. On the 2d rain fell at many stations in Idaho, Utah, Oregon, and continued more generally on the 3d. After this date light local showers occurred at many stations on various dates until the 21st, from which date the weather remained fair until the 28th. Rain fell at many stations on the last 3 days of the month.

NOTES.

Application was made at the Utah state engineers' office for the appropriation of sufficient water from the La Sal Creek, in Grand County, to irrigate 20,000 acres of land in the neighborhood of Rattlesnake Flat, The Nipples, Flat Iron, and the Looking Glass country, according to the Grand Valley Times. The preliminary survey shows that a dam 75 feet high will be required for producing a reservoir at Rattlesnake Flat. With the completion of this, and other reclamation projects under way, there will be no waste land between Moab and La Sal.

The Sevier River Land and Water Company has completed the survey for their 70-mile high-line canal, which leaves the Sevier River about 7 miles below the Sevier Bridge Dam, goes through Leamington Canyon, and ends in Chalk Creek, at a point about 3 miles west of Fillmore, according to the Fillmore Progress-Review. Considerable work has already been done on this line, 5 miles of one lateral having been completed. The canal will reclaim about 100,000 acres.

A company of Salt Lake capitalists propose to reclaim 50,000 acres of land in the vicinity of Milford, Utah.

Announcement has been made by the Western Pacific Company that freight traffic will be resumed on their line, after the washouts along the southern end of Great Salt Lake, about May 20. The San Pedro, Los Angeles and Salt Lake Railroad also announces that through passenger traffic will be resumed on that line June 15, 1910, after 5½ months without a through train passing over the line. The Western Pacific Line has an excellent stone roadbed across the shallow southern end of the lake, but the rails are very near the water and the heavy waves carry the unanchored rails and cross-ties off into the water. It is reported that a new grade around the lake to the south is being constructed.

The irrigation system of the Provo Reservoir Company has been opened. This will cost, when entirely completed, about $500,000 and will reclaim about 10,000 acres of land in northern Utah County and southern Salt Lake County. A reservoir has been constructed in the mouth of the Provo Canyon and the water is carried from there to the irrigation fields through open ditches, rock and cement tunnels, and metal and wood flumes over ridges and under roads by means of siphons and inverted siphons. The entire length of the main canal is about 1½ miles.

The Strawberry Tunnel, at Provo, Utah, was driven 389 feet during April, 1910, making the bore a total of 7,000 feet up to that time, leaving 12,900 feet yet to be driven. Mr. J. L. Lytel is the project engineer in charge.

High winds over the Great Salt Lake wrought several thousand dollars' worth of damage to railroads and to Saltair Beach Pavilion on April 3. The wind was not unusual at Salt Lake City, but over the lake it blew a gale for several hours during the middle portion of the day, and the waves remained high until evening. About 300 bath houses were thrown into the lake from their supporting piles, and about 300 feet of the track approach to the pavilion was considerably damaged, in addition to demolishing a number of the amusement sections of the pavilions. However, the bath houses destroyed were abandoned because of the deep water, another pier having been built toward the shore for this season's use. The embankment

approaches to the trestle section of the Lucin Cut-off were also severely battered, but traffic was only slightly hampered. At the extreme south end of the lake the Western Pacific tracks were thrown from their stone bedding in many places and all train service was suspended for some time.

Gage readings at Saltair, showing the lake heights, were as follows: April 1, +6.7 feet; April 15, +6.9 feet; and May 1, +7.0 feet. These readings are approximately 2.2 feet higher than the readings made a year ago, and about 8.0 feet higher than during the winter of 1905-6.

The night of April 14 was an exceptionally cold one, and frost occurred in practically all parts of the State, doing great damage to all unprotected vegetation, especially to fruit. Conservative estimates of expert fruit men made after carefully examining the various districts of the State indicate that the percentage of loss will, however, be almost inappreciable at ripening time, except in a few localities. In general, the warnings of the Bureau were promptly heeded and fruit was artificially protected, and passed through the night in safety. Where protection was not made, a considerable loss has been noted, but expert fruit men are of the opinion that the loss was over estimated by those who felt that the crop was three-fourths destroyed. The newspapers and telephone companies of the State were very energetic in their distribution of the Weather Bureau's forecast of frost, and the warning reached every district in the State long before evening of the 14th, giving ample time for preparation to all who were provided with means to protect their fruit.

TABLE 1.—*Climatological data for April, 1910. District No. 10, Great Basin.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Border	Uinta	6,085	8	44.3	+ 5.9	78	26†	15	3	50	0.23	− 0.81	0.15	.....	3	16	6	8	w.	S. W. Condron.
Cokeville	...do	.....	.....	43.4	.....	77	27	14	15	50	0.65	.....	0.47	.....	4	23	5	1	nw.	E. J. Tuckett.
Evanston	...do	6,860	14	44.0	+ 5.3	75	26	12	4	43	0.26	− 0.95	0.26	2.0	1	20	9	1	w.	Frank Tucker.
Idaho.																				
Geneva	Bear	.....	2	.....	.....	.....	.....	.....	.....	.....	0.61	.....	0.43	0.0	2	27	2	1	.....	F. W. Boehme.
Grace	Bannock	5,406	3	48.6	.....	82	26	23	15	46	0.57	.....	0.27	0.0	3	20	3	7	s.	Cyril B. Dickson.
Oxford	...do	4,750	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Edwin Smith.
Paris	Bear Lake	5,945	16	44.0	+ 4.3	79	25	17	14	47	0.45	− 0.80	0.25	0.0	3	21	9	0	w.	John Norton.
Stone	Oneida	4,520	2	.....	.....	86	23	.....	.....	.....	0.50	.....	0.25	0.0	3	24	6	0	s.	Thos. W. Roe.
Weston	...do	4,460	12	49.1	+ 2.6	83	25†	18	15	48	0.28	− 1.24	0.22	0.0	2	21	1	8	s.	Wm. Chatterton.
Utah.																				
Alpine	Utah	4,900	13	.....	.....	.....	.....	.....	.....	.....	0.75	.....	0.55	.....	2	14	14	2	.....	George Stevens.
Annabella	Sevier	5,250	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. W. Fairbanks.
Beaver	Beaver	6,000	7	50.8	.....	79	25	19	4	36	0.18	.....	0.16	T.	2	11	17	2	sw.	James Connell.
Black Rock	Millard	4,872	10	50.8	.....	87	26	15	4	58	0.00	.....	0.00	0.0	0	18	5	7	n-s.	W. D. Livingston.
Castle Rock	Summit	6,244	7	.....	.....	.....	.....	.....	.....	.....	0.40	.....	0.15	3.0	4	17	8	5	w.	David Moore.
Cedar City	Iron	5,750	5	53.8[b]	.....	80[b]	25†	19[b]	4	39[b]	0.19	.....	0.15	.....	2	19	8	3	ne.	Parley Dalley.
Corinne	Boxelder	4,240	40	54.1	+ 3.5	89	26†	27	7	52	T.	− 1.14	T.	0.0	0	16	11	3	.....	A. C. Murphy.
Deseret	Millard	4,541	16	52.0	+ 4.0	87	26	20	15	52	0.10	− 0.82	0.10	0.0	1	21	3	6	n.	S. W. Western.
Enterprise	Washington	4,270	2	.....	.....	.....	.....	.....	.....	.....	0.02	.....	0.02	0.0	1	20	9	1	s.	John Day.
Farmington	Davis	4,267	10	51.8	.....	84	26	23	15	41	1.34	.....	0.85	2.0	3	22	7	1	nw.	Charles Boylin.
Fillmore	Millard	5,100	20	55.2	+ 5.3	92	26	21	15	48	0.38	− 1.43	0.38	0.0	1	.....	.....	.....	.....	J. J. Starley.
Friese Summit	Wasatch	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.36	.....	0.39	9.5	5	18	9	3	.....	Victor A. Friese.
Frisco	Beaver	7,318	16	52.4	+ 5.6	84	25	20	4	40	0.00	− 0.69	0.00	0.0	0	.....	.....	.....	.....	E. R. Smyth.
Garrison	Millard	.....	7	53.4[e]	.....	86[e]	26[e]	21[e]	4	41[e]	T.	.....	T.	0.0	0	13	8	4	s.	E. M. Smith.
Government Creek	Tooele	5,277	10	51.1	.....	84	26	11	4†	40	0.57	.....	0.57	4.0	1	16	9	5	n.	Walter James.
Grantsville	...do	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Allen J. Fraser.
Heber	Wasatch	5,606	17	47.9	+ 3.5	83	26	17	15†	50	0.46	− 0.79	0.20	.....	6	17	5	8	s.	John Crook.
Henefer	Summit	5,301	11	47.8	.....	83	26	17	15	53	1.17	.....	0.70	0.0	8	15	9	6	n.	Wm. Brewer.
Ibapah (near)	Tooele	7,500	5	46.8[b]	.....	78[b]	26	11[b]	2	41[b]	0.84	.....	0.65	6.0	12	12	11	7	w.	J. S. Lawton.
Ibex	Millard	.....	.....	56.7[d]	.....	88[d]	25†	24	4	42[d]	0.02	.....	0.02	0.0	1	10[d]	6[d]	10[d]	n.	John J. Watson.
International	Tooele	5,370	.....	53.6	.....	83	26	21	4	30	0.76	.....	0.69	4.2	3	23	5	2	se.	I. S & R. Co.
Kanosh	Millard	5,250	2	.....	.....	.....	.....	.....	.....	.....	0.88	.....	0.66	C.0	3	.....	.....	.....	.....	Geo. Crane.
Kelton	Boxelder	4,230	32	47.8	.....	80	27†	17	16	58	0.00	− 0.76	0.00	0.0	0	12	16	2	n.	F. W. Klock.
Levan	Juab	5,010	20	50.4	+ 3.8	87	26†	19	15	41	0.52	− 1.21	0.52	5.2	1	18	6	6	sw.	Wm. Brown.
Logan	Cache	4,507	19	52.0	+ 4.6	83	26	24	3	35	0.20	− 1.53	0.10	.....	2	.....	.....	.....	n.	Edgar Brossard.
Lucin	Boxelder	4,504	6	52.5	.....	86	25	23	17	47	0.05	.....	0.05	.....	1	12	10	1	w.	C. J. Burke.
Manti	Sanpete	5,575	16	.....	.....	.....	.....	20	4†	33	0.31	− 0.75	0.27	0.0	2	15	3	12	.....	J. M. Anderson.
Marion	Summit	6,750	6	.....	.....	.....	.....	.....	.....	.....	0.99	.....	0.50	3.0	5	11	10	9	s.	Jas. Woolstenhulme.
Marysvale	Piute	6,180	11	48.8	.....	84	26	13	4	52	0.09	.....	0.06	T.	3	11	6	13	n.	John W. Henry.
Meadowville	Rich	6,200	11	45.9	.....	78	27	12	3	40	1.10	.....	0.65	4.0	2	21	4	5	w.	J. S. Moffat.
Milford	Beaver	4,962	6	46.6	.....	82	25	18	3	34	0.20	.....	0.10	.....	2	16	5	9	nw.	C. M. Temple.
Millville	Cache	4,848	15	.....	.....	.....	.....	.....	.....	.....	0.55	.....	0.28	0.0	3	14	14	2	w.	Fred Yeates.
Minersville	Beaver	5,070	13	.....	.....	.....	.....	.....	.....	.....	0.27	.....	0.24	0.0	2	.....	.....	.....	.....	Geo. Roberts, sr.
Modena	Iron	5,479	10	49.6	+ 2.7	80	25	18	4	45	0.28	− 1.42	0.19	0.0	4	14	12	4	w.	U. S. Weather Bureau.
Morgan	Morgan	508	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Visick.
Moroni	Sanpete	5,519	2	.....	.....	.....	.....	.....	.....	.....	0.59	.....	0.39	5.0	2	6	14	0	sw.	B. F. Eliason.
Mount Nebo	Utah	4,650	9	53.7	.....	86	27	25	15†	43	0.22	.....	0.22	0.0	1	24	6	0	n.	D. C. Walkey.
Mount Pleasant	Sanpete	5,859	18	55.0[e]	+ 7.7	80[e]	26	22[e]	4	40[e]	0.41	− 0.52	0.40	4.0	2	14	2	9	.....	C. B. Scoville.
Nephi	Juab	6,059	7	.....	.....	.....	.....	.....	.....	.....	0.28	.....	0.28	1.0	1	24	2	4	sw.	A. M. Madsen.
Oak City	Millard	4,900	6	56.3	.....	87	25†	18	15	44	0.35	.....	0.35	1.0	1	14	13	3	.....	Peter Nielson.
Ogden	Weber	4,310	9	55.6	+ 4.6	83	19	28	15	39	0.21	− 1.82	0.21	0.0	1	26	2	2	nw.	Enoch Farr.
Panguitch Lake	Garfield	9,000	1	.....	.....	.....	.....	.....	.....	.....	0.08	.....	0.08	1.5	1	8	17	5	s.	Jas. E. Prince.
Park City	Summit	7,800	13	46.4[a]	+ 6.4	86[a]	26	15[a]	4†	60[a]	0.71	− 1.10	0.53	0.0	8	18[a]	6[a]	5[a]	.....	Irvin Evans.
Parowan	Iron	5,070	19	51.4	+ 4.3	90	30	20	8	55	0.16	− 1.03	0.13	0.0	2	20	0	10	.....	S. M. Matheson.
Payson	Utah	4,637	7	.....	.....	.....	.....	.....	.....	.....	0.56	.....	0.48	T.	4	11	13	6	sw.	D. L. Coombs.
Pinto	Washington	5,907	13	46.0[d]	+ 2.0	78[d]	23	13[d]	8	55[d]	0.30	− 0.83	0.30	0.0	1	14	12	1	.....	J. H. Harrison.
Promontory	Boxelder	4,913	39	.....	.....	.....	.....	.....	.....	.....	T.	− 0.67	T.	0.0	0	.....	.....	.....	.....	F. C. Houghton.
Provo	Utah	4,532	18	54.6	+ 4.7	93	26	23	17	48	0.33	− 0.94	0.25	0.0	2	10	18	2	n.	James A. Oliver.
Randolph	Rich	6,442	7	.....	.....	.....	.....	.....	.....	.....	0.75	.....	0.36	6.5	3	7	2	3	sw.	William Rex.
Richfield	Sevier	5,350	20	52.4[a]	+ 5.5	90	26	19[a]	4†	55[a]	T.	− 0.57	T.	0.0	0	20	2	8	.....	Joseph J. Jensen.
Saltair	Salt Lake	4,220	7	55.0[a]	.....	81[a]	27†	34[a]	15	33[a]	0.51	.....	0.42	0.0	3	.....	.....	.....	.....	E. J. Bench.
Salt Lake City	...do	4,366	36	54.5	+ 4.5	85	26	29	15	33	0.66	− 1.60	0.57	1.5	5	17	10	3	nw.	U. S. Weather Bureau.
Scipio	Millard	5,260	15	49.2	+ 2.3	85	26	12	15	57	0.43	− 0.82	0.40	1.0	2	12	9	9	sw.	Thos. Memmott.
Silver City	Juab	6,127	.....	.....	.....	.....	.....	.....	.....	.....	0.34	.....	0.32	0.0	2	22	3	5	s.	J. L. Stark.
Spanish Fork Canyon	Utah	4,585	1	56.3	.....	85	26†	26	4	40	0.40	.....	0.31	0.0	4	16	10	4	.....	U. S. Reclamation Service.
Thistle	Utah	5,075	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Denver & Rio Grande Ry.
Tooele	Tooele	4,900	14	53.3	+ 4.4	84	27	26	3†	37	0.64	− 1.08	0.64	0.0	1	8	8	14	nw.	E. A. Bonelli.
Utah Lake Pumping Sta.	Utah	4,500	5	52.4	.....	83	26†	20	15	44	0.74	.....	0.58	2.5	5	22	4	4	.....	W. A. Knight.
Woodruff	Rich	6,500	12	44.5	.....	80	27	12	5	50	0.10	.....	0.10	1.0	1	14	6	10	sw.	B. D. Brown.
Oregon.																				
Burns	Harney	4,157	20	49.2	+ 5.8	85	24	19	28	43	0.32	− 0.23	0.16	0.0	2	17	7	6	sw.	J. C. Welcome, jr.
Christmas Lake	Lake	4,320	2	46.6	.....	85	23	11	14	58	0.34	.....	0.22	0.0	4	8	7	15	sw.	John C. Green.
Paisley	...do	4,500	6	53.2	.....	84	25	29	4	43	0.21	.....	0.10	0.0	4	19[e]	2[e]	6[e]	sw.	E. C. Woodward.
"P" Ranch	Harney	4,300	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. P. Jefferson.
Silver Lake	Lake	4,700	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Wm. Holder.
California.																				
Al Tahoe	Eldorado	6,235	.....	44.8	.....	75	29	19	3†	53	0.61	.....	0.32	T.	4	25	4	1	sw.	A. R. Sprague.
Boca	Nevada	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Southern Pacific Co.
Glen Alpine Springs	Eldorado	6,850	.....	42.8[e]	.....	71[e]	24	17[e]	4	41[e]	1.80[e]	.....	0.33[e]	T.[e]	5[e]	13	8	9	s.[e]	E. W. Porteous.
Tahoe	Placer	6,240	.....	43.0	.....	71	26	24	29	38[e]	0.50	.....	.....	T.	3	21	5	4	w.	Robert M. Watson.
Truckee	Nevada	5,319	39	44.8	+ 4.8	66	19	20	10	30	0.04	− 2.20	0.02	0.0	2	19	0	11	se.	Southern Pacific Co.
Nevada.																				
Aurora	Esmeralda	.....	.....	45.6	.....	75	24	13	6	46	T.	.....	T.	T.	0	26	0	4	.....	
Austin	Lander	6,594	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Bert Acree.
Battle Mountain	...do	4,843	39	57.2	+ 7.4	95	25	22	3	58	0.30	− 0.39	0.17	0.0	3	18	9	3	w.	Southern Pacific Co.
Beowawe	Eureka	4,905	39	51.3	+ 2.0	88	25	22	3†	48	0.00	− 0.56	0.00	0.0	0	28	1	1	sw.	Do.
Carlin	Elko	5,232	39	50.6	+ 6.9	95	24	15	14	65	0.05	− 0.73	0.03	0.0	2	27	0	3	.....	Do.
Carson Dam	Churchill	4,032	3	56.1	.....	88	24	26	4	43	0.23	.....	0.23	0.0	1	18	10	2	w.	U. S. Reclamation Service.
Cherry Creek	White Pine	6,450	1	49.6	.....	81	25	17	15	44	0.05	.....	0.03	T.	3	14	16	0	sw.	J. H. Leishman.
Clover Valley	Elko	6,000	10	49.7	.....	85	25	18	15	49	0.73	.....	0.27	0.0	5	13	13	4	.....	I. F. Wiseman.
Cobre	...do	.....	.....	46.0	+ 0.8	88	26	12	4	60	0.00	− 0.79	0.00	0.0	0	10	12	8	nw.	Southern Pacific Co.
Columbia	Esmeralda	5,750	3	58.0	.....	82	24†	21	4	42	0.08	.....	0.08	T.	1	21	8	1	se.	A. Booth.
Dutton	Elko	5,100	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Golconda Cattle Co.
Elko	...do	5,342	39	50.4	+ 5.7	84	25	18	15	54	0.42	− 0.14	0.17	0.0	4	16	10	4	ne.	Southern Pacific Co
Ely	White Pine	6,421	19	42.6	+ 0.4	71	15	18	18	40	0.30	− 1.25	0.30	0.0	1	23	6	1	w.	G. C. Hunting.
Eureka	Eureka	6,500	7	51.2	.....	81	24†	15	15	44	0.53	− 0.62	0.20	T.	4	13	7	10	s.	Clay Simms.

TABLE 1.—*Climatological data for April, 1910. District No. 10*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Nevada—Cont'd.																				
Fallon	Churchill	3,965	5	55.0	.....	89	24†	22	4	49	0.28	− 0.06	0.28	0.0	2	24	3	3	n.	U. S. Reclamation Service.
Fernley	Lyon	4,200	2	55.9	+ 5.5	87	25	21	5	48	0.15	− 0.17	0.15	0.0	1	21	5	4	w.	Mrs. A. J. Rankin.
Gardnerville	Douglas	4,830	10	53.1	.....	83	24	26	4	50	0.01	− 0.66	0.01	0.0	1	13	11	6	e.	Wm. Dangberg.
Geyser	Lincoln	.....	5	44.4	.....	80	24	10	4	63	0.06	.....	0.06	0.0	1	19	10	1	s.	Mrs. J. F. Wambolt.
Glenbrook	Douglas	.....	.....	43.6	.....	69	27	24	1	40	0.25	.....	0.25	0.0	2	26	4	0	w.	C. C. Henningsen.
Goiconda	Humboldt	4,697	31	52.1	+ 4.2	86	24†	22	4	51	0.95	+ 0.50	0.50	0.0	3	21	6	3	sw.	Southren Pacific Co
Halleck	Elko	5,631	17	.....	.....	.....	.....	.....	.....	.....	0.34	− 0.64	0.12	0.5	4	20	6	4	nw.	Do.
Jean	Clark	2,074	2	.....	.....	95[i]	24	33[i]	9†	51[i]	0.00	.....	0.00	0.0	0	.....	.....	.....	sw.	Salt Lake Route.
Leetville	Churchill	4,020	3	55.8	.....	90	25	24	4	53	0.15	.....	0.15	0.0	1	23	2	5	w.	U. S. Reclamation Service.
Lewers Ranch	Washoe	5,500	22	52.2	+ 6.2	83	24	24	4	49	0.50	− 1.10	0.50	0.0	1	13	15	2	.....	Ross Lewers.
Lovelock	Humboldt	3,977	7	54.8	+ 4.0	88	25	25	4	59	0.00	− 0.18	0.00	0.0	0	.....	.....	.....	.....	J. S. Case.
McAfees Ranch	Esmeralda	4,835	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. H. Rodenkirch.
Millett	Nye	.....	2	50.6	.....	84	24†	11	4	59	0.80	.....	0.80	0.0	1	22	5	3	s.	Fred J. Jones.
Mina	Esmeralda	4,600	3	56.0	.....	90	23†	19	3	53	0.00	.....	0.00	0.0	0	19	3	8	w.	Southern Pacific Co.
Mount Rose Ranch	Washoe	.....	.....	48.4	.....	77	24	22	4	36	0.20	.....	0.20	0.0	1	18	8	4	sw.	Fred Elkins.
Palmetto	Esmeralda	6,780	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Isaac McConnell.
Potts	Nye	6,990	17	46.2	+ 1.7	78	24†	13	4	49	T.	− 0.88	T.	0.0	0	12	7	11	n.	Miss Mamie Potts.
Quinn River Ranch	Humboldt	4,850	8	.....	.....	87[a]	25	20[a]	4	54[a]	0.62	.....	0.41	0.0	2	.....	.....	.....	sw.	F. M. Payne.
Reno	Washoe	4,532	39	53.4	+ 6.0	83	24	24	4	45	0.14	− 0.33	0.14	0.0	1	18	8	4	sw.	U. S. Weather Bureau.
Soda Lake	Churchill	4,534	3	55.4	.....	88	25	23	4	44	0.48	.....	0.35	0.0	3	15	12	3	w.	U. S. Reclamation Service.
Tecoma	Elko	4,812	32	47.2	+ 0.1	90	26	8	5	60	T.	− 0.77	T.	0.0	0	10	15	5	s.	Southern Pacific Co.
Tonopah	Nye	6,090	3	53.0	.....	77	25	27	4	31	0.01	.....	0.01	T.	1	15	14	1	se.	U. S. Weather Bureau.
Wabuska	Lyon	4,347	7	.....	.....	.....	.....	14	4	.....	0.00	.....	0.00	0.0	0	15	0	15	se.	J. G. Young.
Wells	Elko	5,631	38	47.6	+ 2.6	72	11	22	15	36	0.09	− 0.36	0.04	2.0	3	13	13	4	s.	Southern Pacific Co.
Winnemucca	Humboldt	4,432	31	52.4	+ 5.3	87	24	23	4	48	0.63	− 0.25	0.37	0.0	6	13	7	10	sw.	U. S. Weather Bureau.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
• Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for April, 1910. District No. 10, Great Basin.*

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Wyoming.																																	
Border	Bear			.03								T.																	.05		.15		0.23
Cokeville	do			.47																	T.	.05							T.	.07	.06		0.65
Evanston	do			.26								T.			T.						T.												0.26
Idaho.																														.18			
Geneva	Bear		.43																														0.61
Grace	do	T.		.18									T.								T.								.12	T.	.27		0.57
Oxford	do																														.25		0.45
Paris	do											.15	.05																.20		.25		0.50
Stone	Deep Creek		.05																											.06	.22		0.28
Weston	Bear																																
Utah.																																	
Alpine	Great Salt Lake			.55																		.20											0.75
Annabella	Sevier Lake																																
Beaver	do			T.						T.	.02		T.	.10																			0.18
Black Rock	do																																0.00
Castle Rock	Great Salt Lake			.15									.15							.05									.05		T.		0.40
Cedar City	Desert									T.		.04	.15																				0.19
Corinne	Great Salt Lake																												T.				T.
Deseret	Sevier Lake			.10																													0.10
Enterprise	Desert		.02	T.																													0.02
Farmington	Great Salt Lake		.85	.45																									.04		T.		1.34
Fillmore	Sevier Lake			.38																T.													0.38
Friese Summit	Great Salt Lake			.29	.39							.27		.26															T.		.15		1.36
Frisco	Desert																																0.00
Garrison	do			T.									T.																				T.
Government Creek	do		*	.57			T.														T.										T.		0.57
Grantsville	do																																
Heber	do			.20			.03						.05		.03						.05										.10		0.46
Henefer	Great Salt Lake		.70							T.	T.	.03	.15	T.							.08	.02							.10	.06	.03		1.17
Ibapah (near)	Desert		.65				T.			T.	T.										.19												0.84
Ibex	do		.02	T.																													0.02
International	Great Salt Lake			.60	.06					T.	.01				T.														T.		T.		0.76
Kanosh	Sevier Lake			.66										.06																	.16		0.88
Kelton	Great Salt Lake																																0.00
Levan	Sevier Lake			.52											T.						T.												0.52
Logan	Great Salt Lake		.10																											.10			0.20
Lucin	Desert						.05						T.																T.	T.	T.		0.05
Manti	Sevier Lake			.27				T.						T.	.04																		0.31
Marion	Great Salt Lake			.30								T.	.50	.10	T.	T.					T.	.04							*	.05	T.		0.99
Marysvale	Sevier Lake			.02	T.		T.		T.	T.		T.	T.	.06	.01															T.			0.09
Meadowville	Great Salt Lake			.65								.45																			T.		1.10
Milford	Sevier Lake			.10									.10																				0.20
Millville	Great Salt Lake			.24										.13																			0.55
Minersville	Sevier Lake								T.	.03		T.		.24														.28			.03		0.27
Modena	Desert									.18	.01		.08	.01																T.			0.28
Morgan	Great Salt Lake																																
Moroni	Sevier Lake			.39							T.	T.		T.	T.						.20								T.				0.59
Mt. Nebo	Great Salt Lake			.22						T.																					T.		0.22
Mt. Pleasant	Sevier Lake			.40			.01																										0.41
Nephi	Great Salt Lake				.28	T.																											0.28
Oak City	Sevier Lake			.35																													0.35
Ogden	Great Salt Lake																													.21	T.		0.21
Panguitch Lake	Sevier Lake			T.			T.			T.			T.	.08																			0.08
Park City	Great Salt Lake			.53			.01						.02		.03				.04	.03	.08									.02	.03		0.71
Parowan	Desert												.03																		.13		0.16
Payson	Great Salt Lake			.48	.02		T.								T.						.03									.03			0.56
Pinto	Desert			T.						T.			.30																				0.30
Promontory	Great Salt Lake																								T.						T.		T.
Provo	do											T.	.25								.08												0.33
Randolph	do			.36									.35								.04												0.75
Richfield	Sevier Lake			T.							T.										T.												T.
Saltair	Great Salt Lake			.42	.02																								.07				0.51
Salt Lake City	do		.38	.19			T.							T.	T.						.03								.03		.03		0.66
Scipio	Desert			.40			T.			T.				T.							.03								T.				0.43
Silver City	do			.32									.02																				0.34
Spanish Fork Canyon	Great Salt Lake			.31	.01										.01						.07												0.40
Thistle	do																																
Tooele	do			.64																									T.	T.			0.64
Utah Lake Pump'g Sta.	do		*	.58											.13							.02									.01		0.74
Woodruff	do		.10								T.																						0.10
Oregon.																																	
Ana River	Interior Drainage		.02							T.	.04																			.05	.10		0.21
Burns	do												.16																	.16	.05		0.32
Burns Mill	do		.45			.30													T.														0.96
Cecil's Ranch	do																												.05	.05	.22		0.34
Christmas Lake	do											.03																					
Diamond "H" Ranch	do																												.10		.06		0.21
Paisley	do	T.	.62				.03			T.																					.45		0.45
Plush	do																																
"P" Ranch	do																																
Silver Lake	do																																
Valley Falls	do																																
California.																																	
Al Tahoe	Truckee					.25					.02	.02																	.32				0.61
Bijou	do											.02																	.22				0.24
Boca	do																												.20				0.20
Bodie	East Walker					.05					.09	.12								T.													0.26
Bridgeport	do																																
Brockway	Truckee										.12	.30								*	.05							.15		*	1.08		1.70
Deer Park	do													T.						T.									.32				0.32
Donner Ice Camp	do										.14	.33																.18	1.05		.10		1.80
Fales' Hot Springs	West Walker										*	.10								*	.11							*	.20		.02		0.43
Glen Alpine Springs	Truckee													*	.18												*	.10					0.28
Hobart Mills	do																												.18	.18			0.36
Lundy	East Walker																												.20				0.70
Markleesville	East Carson										.10								T.			40											0.00
McKinney	Truckee			T.																													0.00
Shields' Ranch	West Walker																												.20	.15			0.35
Silver Creek	East Carson																												*	*	.50		0.50
Tahoe	Truckee											T.																					
Tallac	do						T.			T.	*	.07																*	.35	T.	T.		0.42
Truckee	Truckee										.02																	.02					0.04
Woodfords	West Carson											.09																.55					0.64

TABLE 2.—*Daily precipitation for April, 1910. District No. 10*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Nevada.																																	
Aurora	East Walker											T.																T.					T.
Austin	Reese																																
Battle Mountain	Humboldt						.65																						.17		.08		0.30
Beowawe	...do																																0.00
Buckskin	Walker																																
Carlin	Humboldt																												.02		.03		0.05
Carson Dam	Carson											T.																	.23		T.		0.23
Cherry Creek	Humboldt			.03			.01				.01										T.								T.		T.		0.05
Clover Valley	...do			.27						.12	T.										.03								T.	.16	.15		0.73
Cobre	...do																																0.00
Columbia	Desert											.08																					0.08
Dutton	Humboldt																																0.00
Elko	...do						T.			.06			.05								T.								.17		.14		0.42
Ely	...do																						.30		T.					T.			0.30
Eureka	...do			.10																	.20								.08		.15		0.53
Fallon	Carson											T.																*	.28		T.		0.28
Fernley	Truckee																												.15		T.		0.15
Gardnerville	Carson																												.01				0.01
Geyser	Humboldt																														.06		0.06
Glenbrook	Truckee																													*	.25		0.25
Golconda	Humboldt											.25									T.								.50		.25		1.10
Halleck	...do																																
Jean	Desert																																0.00
Leetville	Carson																												.15				0.15
Lewers Ranch	Truckee																												.50				0.50
Lovelock	Humboldt																																0.00
McAfees Ranch	Desert																																
Millett	Reese											.80																		T.			0.80
Mina	Desert																																0.00
Mount Rose Ranch	Truckee																											T.	.20		T.		0.20
North Fork	Humboldt	1.00	T.	.13									T.																.20		.12		1.45
Palmetto	Desert																																
Paradise Valley	Little Humboldt											.50																	.15		.34		0.99
Potts	Reese									T.																							T.
Quinn River Ranch	Humboldt																												.41		.21		0.62
Reno	Truckee						T.																						.14		T.		0.14
Rose Creek	Humboldt						.12					.25									.65							*	.58	*	.23		1.23
Smith	West Walker												.04																.07				0.11
Spooners Ranch	Truckee										.02																		.33				0.35
Soda Lake	Carson						T.					.03																	.35		.10		0.48
Sweetwater	East Walker																.25	T.												.30			0.55
Tecoma	Humboldt																														T.		T.
Tonopah	Desert											.01																					0.01
Wabuska	Walker																																0.00
Wells	Humboldt		.04																										.03		.02		0.09
Willow Point	Little Humboldt											.14																	.03		.02		0.19
Winnemucca	Humboldt		T.				.02				T.	.15									.01							.07	.30	T.	.08		0.63

TABLE 3.—*Maximum and minimum temperatures at selected stations, April, 1910. District No. 10, Great Basin.*

Date.	Wyoming.				Weston, Idaho.		Utah.																Burns, Oreg.		Elko, Nev.	
	Border.		Evanston.				Corinne.		Deseret.		Government Creek.		Marysvale.		Modena.		Ogden.		Parowan.		Provo.		Salt Lake City.					
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	60	40	58	26	63	29	73	35	69	28	66	35	69	21	64	28	69	41	58	29	72	33	68	42	51	30	66	30
2	55	34	57	33	61	38	68	49	69	40	66	39	66	37	62	34	67	44	60	30	74	35	67	34	50	28	62	32
3	51	15	50	20	57	27	65	50	45	30	59	25	55	27	51	25	61	39	60	31	43	32	39	30	48	25	60	34
4	36	17	35	12	50	21	69	28	52	21	48	16	51	13	52	18	48	29	62	30	55	28	48	31	58	28	68	36
5	44	18	54	18	59	23	65	32	64	22	60	28	67	17	60	21	57	32	63	28	64	30	62	34	57	33	68	19
6	56	19	53	27	59	28	68	34	61	39	56	38	57	34	54	36	64	41	63	27	63	40	60	43	60	36	64	30
7	58	26	57	26	63	30	68	27	67	29	62	31	65	26	64	29	60	38	55	25	65	35	60	42	65	34	66	28
8	66	25	65	28	69	30	70	32	72	30	69	35	71	25	68	29	69	44	67	20	72	37	68	43	63	32	68	28
9	65	28	62	29	69	33	65	34	70	39	68	41	65	33	64	38	72	48	60	25	74	46	70	49	60	36	74	30
10	66	28	63	29	70	35	64	30	73	42	70	43	69	33	65	35	72	49	65	30	76	42	72	47	58	34	72	34
11	65	31	60	33	70	36	68	28	68	42	67	40	62	35	62	42	74	52	67	37	76	45	71	52	60	35	72	31
12	61	35	60	35	71	38	73	36	71	38	64	39	65	28	62	36	65	53	63	35	69	47	65	51	57	28	68	30
13	55	37	52	34	62	39	65	31	65	44	69	36	59	35	66	39	64	43	62	33	64	45	59	46	58	21	69	29
14	46	22	43	26	49	29	68	30	47	33	41	26	49	29	52	32	56	30	61	32	52	26	46	34	62	28	55	27
15	47	18	42	17	53	18	63	31	54	20	48	16	48	25	53	27	53	28	66	23	55	25	48	29	70	30	61	18
16	59	18	59	19	66	20	68	35	67	22	63	26	66	20	66	23	63	31	66	73	71	38	61	34	76	34	70	23
17	66	24	64	24	72	27	70	34	76	26	71	36	72	21	72	29	71	40	69	27	68	23	68	41	74	36	74	32
18	70	25	69	28	77	30	80	28	79	30	75	38	77	25	75	32	76	41	76	35	77	37	73	46	75	34	80	28
19	71	27	72	31	78	33	76	32	82	54	78	43	79	28	77	32	83	44	76	36	85	43	80	50	80	37	80	26
20	75	25	68	32	71	42	68	31	60	46	69	46	73	40	64	37	76	55	77	36	77	44	74	44	74	28	78	40
21	58	30	56	31	65	27	82	38	67	30	61	28	63	37	65	35	63	36	77	35	65	40	58	44	70	35	68	24
22	65	23	63	28	70	29	75	33	73	28	69	34	73	25	73	29	69	42	78	36	64	35	67	42	78	38	78	26
23	72	26	70	29	79	31	83	38	80	33	77	36	77	28	76	33	75	47	78	37	81	38	72	47	83	46	80	32
24	74	25	73	30	80	33	86	36	82	35	78	37	80	29	78	35	78	52	80	37	84	45	78	49	85	50	83	34
25	78	28	73	31	83	35	87	41	86	34	82	42	82	32	80	39	79	53	82	38	87	43	80	52	84	47	84	38
26	78	32	75	33	83	36	89	41	87	40	84	50	84	33	79	39	82	54	85	31	93	45	85	54	70	39	70	39
27	77	30	73	35	79	38	89	47	84	52	82	51	82	40	78	45	81	55	87	38	90	51	83	61	68	35	78	46
28	75	30	68	48	72	40	82	36	76	58	71	49	76	43	70	44	79	53	87	37	77	58	75	48	58	19	70	39
29	66	30	53	28	59	30	85	36	66	41	60	37	65	40	66	36	58	37	88	36	64	40	57	44	44	34	56	30
30	54	23	46	22	55	28	76	34	69	35	57	35	70	29	68	32	57	42	90	35	65	30	57	42	55	29	54	31
31																												
Mns	62.3	26.3	59.8	28.1	67.1	31.1	73.6	34.6	69.4	34.5	66.3	35.9	67.9	29.6	66.2	33.0	68.0	43.1	70.9	32.0	70.7	38.5	65.7	43.5	65.0	33.3	70.2	30.6

Date.	Nevada.																									
	Ely.		Eureka.		Fallon.		Jean.		Lovelock.		Millett.		Mina.		Quinn River Ranch.		Reno.		Tecoma.		Tonopah.		Winnemucca.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1			65	34	72	31			71	28	68	25	75	33			63	35	56	13	63	41	64	36		
2			64	33	71	40			72	33	70	34	72	35			58	40	52	11	61	42	60	42		
3			61	21	59	37			70	30	60	37	64	19	60	22	52	34	52	13	45	31	47	28		
4			58	18	61	22			69	25	59	11	68	25	61	20	62	24	54	10	53	27	60	23		
5			64	32	66	27			67	29	66	20	66	25	68	25	65	31	54	8	55	37	70	32		
6			59	38	66	45			68	40	63	33	74	32			63	43	57	17	55	35	62	39		
7			65	30	71	33			70	34	68	26	77	32			70	32	62	22	62	40	69	36		
8			69	40	78	36			69	30	75	25	77	34			71	38	60	32	65	43	76	36		
9			69	45	75	36	84	33	70	29	72	32	75	34			66	39	64	29	65	44	71	40		
10			69	41	73	38	83	43	68	38	70	29	70	35	75	39	62	43	73	36	62	42	70	40		
11			59	40	60	41	75	46	72	31	63	44	60	34	70	25	56	37	72	38	52	32	52	37		
12			62	29	65	30	74	42	71	28	66	30	69	32	66	30	66	32	70	34	55	32	64	31		
13			62	27	70	37	82	40	65	33	67	30	69	40	60	40	69	36	67	30	60	40	64	34		
14			56	26	65	36	82	40	58	50	57	37	68	29			60	37	60	32	52	37	53	26		
15			56	15	63	27	83	47	69	28	63	24	76	34			68	31	68	34	60	29	62	26		
16			70	26	75	30	79	33	80	27	74	22	84	48			78	33	72	38	69	41	74	31		
17			74	34	81	34	79	33	87	34	77	27	76	39			80	40	74	38	73	50	80	35		
18			76	42	85	36	90	40	89	30	80	28	87	35			81	38	74	37	74	51	83	41		
19			77	45	86	47	93		85	42	80	32	86	44			76	45	75	38	73	55	83	40		
20			71	33	79	43	86	60	80	32	70	40	84	41			66	40	65	40	57	40	64	38		
21			66	26	74	33	80	50	76	34	73	23	82	29			73	34	70	35	69	40	71	34		
22			76	33	82	35	92	49	83	36	80	26	88	35	73	29	81	37	72	30	72	54	80	37		
23			79	46	86	37	89	41	86	40	83	24	90	38	81	30	84	43	70	25	77	54	85	42		
24			81	47	89	43	95	44	85	42	84	28	90	43	86	32	85	43	80	32	77	55	87	40		
25			81	47	89	41	91	53	88	38	84	33	89	49	87	34	81	47	75	31	77	53	87	39		
26			80	46	83	49			84	48	79	40	83	47	83	51	75	57	90	30	74	54	78	48		
27			76	44	75	52	93	61	73	47	77	39	77	44	71	40	70	47	80	32	73	53	73	40		
28			67	41	65	43	89	64	60	42	69	43	69	35	64	40	58	40	70	30	63	39	58	41		
29			59	26	65	34	82	52	74	39	55	27	68	47	61	33	62	32	60	32	61	32	60	34		
30			56	35	61	41	81	50	87	42	63	42	67	34	58	38	56	42	46	24	62	41	58	36		
31																										
Means			67.6	34.7	73.0	37.1	84.9[1]	46.0[1]	74.9	35.3	70.8	30.4	76.0	36.0			68.6	38.3	66.5	28.0	63.9	42.1	68.8	36.1		

Climatological Data for April, 1910.

DISTRICT No. 11, CALIFORNIA.

Prof. ALEXANDER G. McADIE, District Editor.

GENERAL SUMMARY.

The month of April was, on the whole, warmer than usual and drier. A fair index of the general conditions throughout the State is afforded by the records at San Francisco, covering a period of 61 years, whereby we are enabled to compare the general character of the month with other Aprils. The present month belongs decidedly in the group of dry Aprils. Since 1906 the average frequency of rainy days in the central portion of the State has been 4; but on the other hand, in earlier years the average frequency was 6, and in certain groups of years rose to 9. In individual years there have been 10 or more rainy days, and in one year (1880) there were 17 days on which rain fell. Of this number, there were 11 consecutive days. In April, 1857, no rain fell and this condition was almost paralleled during April, 1909, when only a trace of rain fell during the entire month. As will be shown elsewhere, in discussing the snowfall, the precipitation at high levels in the State during the present April was also deficient, although greater than the amount which fell during the preceding April. The most marked general feature of the month then was its comparative dryness. The other significant feature was the continued warmth. It will be remembered that the month of March was likewise warm. In fact, the continued high temperature and deficient precipitation were noticeable over a large portion of the United States. It seems likely, therefore, that the same general controlling causes, whatever they may be, continued to act throughout April in the Pacific coast States. Indeed, during the last week of the month, temperatures were higher than ever before recorded for the same period of the year. As stated in the National Weekly Bulletin for the week ending May 2, the warm area "moved slowly eastward as the week advanced, bringing unusually high temperatures throughout the entire central and northern portions of the country as far east as the Atlantic coast by the 30th."

The 22d and 23d of April were the warmest days of the year, and at Los Angeles and San Diego maximum temperature records were broken. At the former place a temperature of 100° was recorded. At Fresno the highest temperature previously reported, 100.8° F., was exceeded, the temperature reaching 101.1°. The mean temperature for the month at Fresno was the second highest on record. Many of the cooperative observers called attention in their reports to the warm character of the month and some stated it was the warmest April on record.

There was less cloudy weather than usual and fewer pressure disturbances. The surface winds, except where determined by local draughts, were mainly from the north, and this probably explains the comparative dryness, as these are not rain-bearing winds. The first decade was one of quiet weather and normal air movement. There was nothing noteworthy until April 9, when a small disturbance developed over the Sierra. As it subsequently appeared, this was the forerunner of a general depression which caused 48 hours or more of unsettled weather over the whole coast. From April 14 until the end of the month, with the exception of brief intervals on April 27 and 30, the weather was fair and pleasant, due probably to a succession of high areas crossing the Pacific slope north of the 30th parallel. On April 22 and 23 a moderate norther prevailed. During the first 24 hours the following temperatures were reported: Los Angeles, 98°; San Diego, 94°; San Luis Obispo, 94°; and San Francisco, 86°. An interesting comparison of temperatures is the following, showing, as it does, a temperature gradient steep enough to have caused a decided indraught of air from the cooler to the warmer stations. Such result, however, did not occur. April 22, 1910, 5 p. m., San Francisco, 84°, wind 4 miles per hour from the northwest; Southeast Farallon, 54°, wind northwest, 12 miles. The maximum temperature recorded at San Francisco during the day was 86°. The maximum temperature recorded at the Farallones during the day was 56°. On April 23, during the afternoon, the temperature at San Francisco rose to 87°, which, with the exception of April 14, 1888, when the temperature rose to 88°, was the warmest April day ever recorded. At Fresno the temperature rose to 100° or slightly above; at Los Angeles, 100°, breaking the record; at San Diego, 96°. Again it is interesting to notice that at the same moment the temperatures at San Francisco and at the Farallones were, respectively, 84° and 50° and the wind did not blow from the colder to the warmer region, but exactly opposite.

The warm period was followed, as frequently happens, by fog along the coast. The temperature at San Francisco was, on the afternoon of April 24, 32° lower than at the same hour on the preceding day.

TEMPERATURE.

One hundred and eighty-eight stations were considered in determining the mean temperature for the State. This was 59.8°. Departures from the normal were available for 128 stations and these show that the month was 3.6° above the normal. This was the warmest April in the past 6 years. The next warmest was in 1908 when the mean temperature was 58.4°. The coldest April was in 1906 when the mean temperature was 56.3°. The highest temperature recorded at any one station during the month was 110°, at Lemon Cove, on the 24th, and the lowest 9°, at Macdoel, on the 4th. The station reporting the the highest monthly mean was Bagdad, 78.8°. Other stations with a high monthly mean temperature are Mammoth Tank, 75.2°; Needles, 74.8°; Palm Springs, 73.2°; Brawley, 72.8°; and Tehama, 72.4°. The coldest station, as determined by the monthly mean, was Macdoel, 42.4°, followed by Madeline, 44.4; La Porte, 47.8°; and Alturas, 48.8°.

PRECIPITATION.

One hundred and eighty-nine stations were considered in determining the monthly rainfall for the State, which was 0.62 inch. The departures from the normal for 133 stations showed a deficiency of 1.40 inch. The greatest 24-hour rainfall was 2.61 inches on the 10th and 11th at Upper Mattole. The greatest monthly amount was 3.49 inches at Monumental. At 24 stations no rainfall was reported. April, 1909, had less rain than the present April. That, however, was the driest April on record, with the single exception of April, 1857.

WIND.

The prevailing direction of the wind was northwest.

SUNSHINE.

There was more sunshine than usual. At Sacramento, 319 hours; San Diego, 282; San Luis Obispo, 270; Fresno, 344; San Francisco, 319; Eureka, 149; Los Angeles, 289; Red Bluff, 206; and San Jose, 286.

EARTHQUAKES.

Earthquakes were reported as follows: San Diego, 11:57 p. m., on the 10th; Alameda, 6:50 a. m., on the 22d; El Cajon, midnight of the 10th; Heber, midnight of the 11th; Idyllwild, 5:30 a. m., of the 10th and 12:08 a. m., of the 11th; Priest Valley, 3 shocks on the 30th; Redlands, just before midnight of the 11th; San Bernardino, 11:57 p. m., of the 11th.

SNOWFALL IN THE MOUNTAINS.

April, 1910, was a month of light snowfall. Usually a moderate snowfall is recorded at all stations above a 1,000-meter

level. There is nearly always a snow covering extending down to the 1,500-meter level; while in the gulches and on mountain tops the depth of snow at the end of April exceeds several feet. April, 1909, broke the records for light snowfall during the month, the record covering a period of 10 years; but there had been heavy snow earlier in the season and the snow cover at the beginning of the month was above normal. April, 1910, had a little more snow than fell in the same month the previous year, but the snow cover was by no means so deep. The outlook, therefore, is unfavorable for an abundant supply of water during the coming season, unless there should be later precipitation. An interesting comparison of the depth of snow at the close of April for the past 3 years is recorded by the following table:

Solid snow on the ground.

Station.	Year.		
	1908.	1909.	1910.
	Inches.	*Inches.*	*Inches.*
Summit, Placer County	20	124	13
Tamarack, Alpine County	48	208	50

As stated elsewhere, the month was warm and the snow melted rapidly. In the Sierra foothills the snowfall was light and did not remain long after falling. By the middle of the month the snow was practically off the ground, remaining only on the northern slopes and in the deep gulches.

Comparative table of river grades.

River.	Length.	Descent.	Average fall per mile.
Eastern.	*Miles.*	*Feet.*	*Feet.*
Mississippi	2,300	1,500	0.6
Ohio	1,000	700	0.7
Missouri	2,340	4,000	1.7
Connecticut	375	2,000	5.3
Kennebec	150	1,000	6.6
Rio Grande	1,800	12,000	6.6
Hudson	300	4,300	14.3
California.			
Calaveras	68	1,000	14.6
Sacramento	400	7,000	17.5
Feather	136	4,678	34.4
Tuolumne	155	8,000	51.6
Stanislaus	113	8,000	70.8
American	118	8,500	72.0
Yuba	90	6,700	74.4
Cosumnes	93	7,500	80.3

STEEP DESCENTS OF CALIFORNIA RIVERS.

The story of the Colgate and Yuba power plants is most interestingly told by Mr. Archie Rice in the Journal of Electricity, Power, and Gas, for April 30, 1910, and the following extracts are made, by permission of the editor. This is one of the largest, as it was one of the earliest hydroelectric enterprises for the long-distance transmission of power on the Pacific slope. Power is delivered to the cities on San Francisco Bay, a distance of about 140 miles. In describing California's wealth of water power, Mr. Rice states:

> To understand why it is that California is so wonderfully rich in water power you must bear in mind that there are a dozen or more rivers rushing down from sources high in the lofty Sierra. Wherever water can be diverted and made to flow gradually along the side of a river canyon and produce a single plunge of several hundred feet, there power can be developed to run an electric generating plant. How splendidly California is supplied with steep rivers is indicated in the accompanying table, which gives the foot-drop to the mile for several well-known eastern rivers and for some of those in California. In this connection it will be recalled that the Yuba River slopes average 100 feet to the mile between the dam and the Colgate power house, and that the diverting flume is given a drop of less than 13 feet to the mile. That flume slope is much greater than is really necessary. The mighty Mississippi goes to the Gulf with a drop of only a little more than 7 inches to the mile.
>
> The steep descent of most of the California rivers enables power developers to locate more than one plant on the same diverted water system by leading the discharged water from the upper plant down by easy gradients to some point where another big drop can be produced.

NOTES ON THE RIVER CONDITIONS IN THE SACRAMENTO AND SAN JOAQUIN WATERSHEDS DURING APRIL, 1910.

The Sacramento Watershed.—The average of all river gage readings throughout the Sacramento Valley, as a whole, during April, 1910, fairly represented the normal condition of the streams for this season of the year. The average, on the whole, was maintained, however, as the result of rapidly melting snow in the mountains, rather than from the effects of precipitation, which was markedly deficient.

The western tributaries of the Sacramento River, and the Sacramento itself above Redding, were lower than in any April of recent years, except that of 1908, when all streams in the central valleys of California were exceptionally low.

The average stage of the Yuba River, on the east, was also considerably below the normal, having been the same as that of April, 1908. Owing to its restricted watershed this stream was the first of any importance to recede, the snows that feed its numerous forks in the high altitudes having mostly all melted by the 10th or 15th of April.

The run-off in the tributaries of the Feather River, especially its northern and middle forks, was sufficient to keep this stream moderately high during the entire month.

The American River averaged about 1 foot above the usual April stage and carried more water than it has for any April since that of 1907, when it was exceptionally full for the month in question.

At the close of the month all flood basins of the Sacramento River had practically ceased discharging, and many large areas, that usually are covered with water until the middle of May or the 1st of June, had become dry through seepage and evaporation.

The visible water supply now available for the Sacramento Valley is much less than for many years, and it is forecast that there will be a marked shortage of water during the coming summer.

The San Joaquin Watershed.—Except the Calaveras River, which was exceptionally low during the greater part of the month, all streams that supply the San Joaquin River averaged over 1 foot above the normal April stage. The San Joaquin itself carried more water than for any other April since that of 1907.

Owing to the unusually early melting of the snows in the southern Sierra the spring rises throughout the San Joaquin Valley began from 20 to 30 days earlier than usual, and the run-off in almost all streams during April was comparable with that of the middle of June, when the spring rises usually culminate.

The present available water supply for the entire San Joaquin watershed appears to be limited, and it is safe to predict a decided shortage of water for the coming summer and fall.—*N. R. Taylor, Local Forecaster.*

TABLE 1.—*Climatological data for April, 1910. District No. 11, California.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Oregon.																				
Klamath Agency	Klamath	4,169	2	48.5		79	25	22	21†	50						24	1	5	s.	H. J. Wilson.
Klamath Falls	...do	4,250	15	49.0	+ 1.6	83	23	23	4	45	0.28	− 0.63	0.14	0.0	3	15	7	8	nw.	W. H. Heileman.
Lakeview	Lake	4,800	7	53.6	+ 9.9	90	25	18	5	59	0.00	− 1.24	0.00	0.0	0	21	9	0	s.	Geo. L. Wharton, jr.
Merrill	Klamath	4,070	4	53.9		85	23	19	14†	52	0.03		0.03	0.0	1	18	10	2		D. H. Ward.
Yonna	...do		3	47.4		81	23	18	4†	56	0.30		0.15	0.0	3	8	19	3	s.	Jacob Rueck.
California.																				
Alameda	Alameda		1	60.9		90	23	42	4†		0.04		0.02	0.0	3	16	6	8	nw.	Chas. E. Sears.
Alturas	Modoc	4,460	6	48.8		87	24	18	4†	39	0.26		0.14	0.0	3	17	9	4	sw.	Prof. C. B. Towle.
Anderson (near)	Shasta	550	1	62.4		91	23†	40	3	40	0.27		0.10	0.0	4	21	7	9	s.	C. S. Richardson.
Angiola	Tulare	208	10																	Santa Fe Co.
Antioch	Contra Costa	46	31	68.9	+ 9.2	91	23†	52	2		0.10	− 0.85	0.10	0.0	1	26	2	2	nw.	Southern Pacific Co.
Aptos	Santa Cruz	102	25	58.4	+ 3.5	85	22	47	3†		0.66	− 1.23	0.51	0.0	2	19	5	6	nw.	Do.
Arrowhead Springs	San Bernardino	2,000	1	64.9		99	18	40	3†	50	0.00		0.00	0.0	0					G. I. Royce.
Auburn	Placer	1,360	39	59.5	+ 3.0	90	25	36	10	36	1.80	− 1.41	1.10	0.0	3	27	0	3	sc.	Southern Pacific Co.
Avalon	Los Angeles			60.8		92	22	48	12	29	0.16		0.16	0.0	1	23	6	1	w.	W. N. Vilas.
Azusa	...do	540	8																	A. P. Griffith.
Bagdad	San Bernardino	784	7	78.8		103	26	54	11	34	0.00		0.00	0.0	0					Santa Fe Co.
Bakersfield	Kern	404	21	69.0	+ 4.3	100	23†	45	4	41	0.00	− 0.22	0.00	0.0	0					Do.
Barstow	San Bernardino	2,105	7	66.2		99	19†	38	1†	51	0.00		0.00	0.0	0	16	12	2	w.	E. L. White.
Berkeley	Alameda	317	23	57.0	+ 3.0	86	22	44	3	36	0.41	− 1.43	0.34	0.0	3	16	5	9	w.	State University
Biggs	Butte	98	11	63.4	+ 6.0	89	24	43	3†		0.00	− 0.99	0.00	0.0	0	27	0	3	s.	Southern Pacific Co.
Bishop	Inyo	4,450	15																	W. A. Chalfant.
Blocksburg	Humboldt	1,700	4	54.8		94	24	30	3	41	1.14		0.37	0.0	5	12	9	9	nw.	Victor Hope.
Blue Canyon	Placer	4,695	11	53.2	+ 6.1	79	23	29	29	32	1.48	− 2.29	1.00	3.0	3	21	3	6	s.	Southern Pacific Co.
Blythe	Riverside		1	69.8[b]		106	24	42	2†	55	0.18		0.18	0.0	1	26	3	1	s.	H. V. Blenkiron.
Branscomb	Mendocino	2,000	10	52.2		87	23†	31	3	52	2.30	− 2.41	1.05	0.0	7	15	10	5	n.	A. J. Haun.
Brawley	Imperial	− 105	1	72.8		106	24	43	1	52	T.		T.	0.0	0	22	6	2	w.	U. S. Weather Bureau.
Brush Creek	Butte	2,140	6	56.3		92	24	36	14†	67	1.47		0.65	0.0	3	16	11	3	s.	Cal. Gas & Electric Co
Calexico	Imperial	0	5	73.8		104	24	48	16	45	0.00		0.00	0.0	0	27	3	0	nw.	J. E. Peck.
Caliente	Kern	1,290	34	73.3	+12.4	102	24†	51	12		0.70	− 0.69	0.70	6.0	1	27	0	3		Southern Pacific Co.
Calistoga	Napa	363	38	54.2	− 3.6	87	19	40	7†		1.14	− 1.74	0.85	0.0	4	22	0	8	w.	Do.
Campbell	Santa Clara	217	13	56.0	+ 1.3	89	23	34	29	47	0.17	− 0.79	0.09	0.0	2	15	4	11	nw.	F. M. Righter.
Camptonville (near)	Yuba	3,500	3	59.6		98	23	36	4†	44	1.48		0.90	0.0	7	17	5	8		S. B. Johnson.
Cedarville	Modoc	4,675	16	54.0	+11.7	90	24	21	4	48	0.70	− 0.30	0.32	2.0	3	24	6	0	sw.	T. H. Johnstone.
Chico	Butte	189	40	61.0	− 0.6	92	23	36	29	45	0.23	− 1.56	0.23	0.0	1	22	2	6	s.	Butte County R. R. Co.
China Flat	Humboldt	600	1	61.9		98	24	35	14	53	0.44		0.25	0.0	2	12	13	5	s.	O. I. Westerburg.
Chino	San Bernardino	714	18	67.4	+ 6.6	99	23	46	2†		0.26	+ 0.13	0.26	0.0	1	21	1	8	w.	Southern Pacific Co.
Cisco	Placer	5,939	39	45.9	+ 8.6	71	26	30	4		0.50	− 3.84	0.50	5.0	1	25	0	5	sw.	Do.
Claremont	Los Angeles	1,200	18	63.7	+ 6.6	101	23	40	29	47	0.23	− 0.25	0.18	0.0	4	17	9	4	w.	F. P. Brackett.
Cloverdale	Sonoma	340	8	57.2[d]		93[d]	23	36[d]	7	44[d]	1.02		1.00	0.0	2				n.	Lloyd Browne.
Colfax	Placer	2,421	39																	Southern Pacific Co.
Colusa	Colusa	60	7	63.0		88	23	45	11	33	0.17	− 1.25	0.09	0.0	2				sc.	W. K. De Jarnatt.
Corning	Tehama	277	24	67.1	+ 6.8	86	22†	52	3†		0.46	− 1.16	0.35	0.0	2	25	0	5	n.	Southern Pacific Co.
Cuyamaca (1)	San Diego	4,677	11	54.8	+10.9	81	21†	32	11†	30	0.92	− 2.92	0.80	1.0	3	13	10	7	e.	L. L. Macquarie.
Daunt	Tulare	4,000	3	56.2		93	24	31	12	42	0.68		0.60	0.0	3	18	4	8		D. L. Wishon.
Davisville	Yolo	51	38	58.0	− 2.8	91	24	29	14	48	0.13	− 1.26	0.13	0.0	1	11	14	5	s.	S. H. Beckett.
Deer Creek	Nevada	3,700	3	52.3		84	24	31	29	44	2.92		1.24	0.0	6	14	14	2		Cal. Gas & Electric Co.
Delta	Shasta	1,138	25	64.4	+ 7.0	91	25	40	3†	45	2.14	− 3.87	1.20	0.0	2	21	0	9	s.	Southern Pacific Co.
Denair	Stanislaus	126	10	62.6	+ 6.3	102	25	40	29	52	0.72	− 0.27	0.56	0.0	3	22	3	6	n.	Santa Fe Co.
Dobbins	Yuba	1,650	6	62.1		92	23†	42	12†	46	0.81		0.38	0.0	5	17	10	3	s.	Cal. Gas & Electric Co.
Dudleys	Mariposa	3,000	1	53.2		85	23†	32	1†	47	2.07		1.42	0.0	4	20	6	4	n.	W. H. Dudley.
Dunnigan	Yolo	65	33	68.8	+ 6.4	95	24	50	28		0.54	− 1.00	0.54	0.0	1	24	2	4	n.	Southern Pacific Co.
Dunsmuir	Siskiyou	2,285	21	56.6	+ 7.1	98	15	40	3		1.81	− 2.91	1.27	0.0	3	20	0	10	n.	Do.
Durham	Butte	160	15	59.4	+ 2.2	90	24	37	12	43	0.20	− 1.83	0.18	0.0	2	20	8	2	s.	R. W. Durham
El Cajon	San Diego	482	11	62.2	+ 4.0	102	23	38	2†	58	0.24	− 0.45	0.13	0.0	4	25	2	3	sw.	H. H. Kessler.
Electra	Amador	725	6	62.0		101	24	40	12	42	1.23		0.68	0.0	3	19	8	3		Cal. Gas & Electric Co.
Elsinore	Riverside	1,234	15	61.4	− 0.3	104	23	26	1	64	0.35	− 0.09	0.35	0.0	1	25	0	5	w.	W. H. Bohannon.
Emigrant Gap	Placer	5,230	36	54.4	+11.9	78	24	30	11	26	1.08	− 3.91	0.85	0.0	2	16	5	9	w.	Southern Pacific Co.
Escondido	San Diego	657	16	62.2	+ 3.9	103	23	35	1†	59	0.58	− 0.87	0.42	0.0	3	6	22	2	w.	A. R. Moon.
Eureka	Humboldt	64	24	50.5	+ 1.0	65	10	38	3	18	0.83	− 3.45	0.29	0.0	10	8	8	14	n.	U. S. Weather Bureau.
Farmington	San Joaquin	111	31	62.2	+ 3.1	88	22	44	1		0.17	− 1.67	0.05	0.0	4	18	11	1	nw.	Southern Pacific Co.
Folsom	Sacramento	252	38	62.4	+ 0.7	98	24	40	12†	45	0.57	− 1.65	0.28	0.0	4	20	4	6	s.	F. O. Hutton.
Fordyce Dam	Nevada	6,500	15	41.8		65	22	23	2	34	1.94	− 2.94	0.90	7.0	5	14	12	4	sw.	E. E. Roening.
Fouts Springs	Colusa	1,650	6	55.6		85	23†	30	8†	42	1.04		0.58	0.0	2					H. S. Green.
Fresno	Fresno	293	23	65.2	+ 4.0	101	24	44	3	43	0.27	− 1.07	0.22	0.0	3	15	13	2	nw.	U. S. Weather Bureau.
Fruto	Glenn	624	21	60.5	+ 1.6	90	24	40	3		T.	− 1.53	T.	0.0	0	20	0	10	s.	Southern Pacific Co.
Galt	Sacramento	49	32	57.8	− 3.4	75	28	44	1†		0.17	− 1.54	0.12	0.0	2	24	2	4	w.	Do.
Georgetown	El Dorado	2,650	37	57.4	+ 2.0	87	24	34	12	33	1.88	− 4.10	0.83	0.0	6	23	0	7	sc.	H. D. Jerrett.
Gilroy	Santa Clara	193	36																	Southern Pacific Co.
Gold Run	Placer	3,222	11	58.2	+ 5.1	88	25	33	11	35	1.87	− 0.98	0.90	0.0	3	24	5	1	sw.	Do.
Gonzales	Monterey	127	11	55.8	+ 3.3	95	23	40	28		0.25	− 0.45	0.20	0.0	2	23	0	7	n.	Do.
Grass Valley	Nevada	2,690	38	56.6		87	23†	36	3†	32	1.61	− 3.63	0.90	0.0	5	20	7	3	s.	F. R. Hull.
Greenville	Plumas	3,600	16	50.8	+ 4.3	85	24	20	7	54	0.62	− 1.87	0.42	T.	2	20	1	9	sw.	C. H. Higbie.
Groveland	Tuolumne	2,828	1	55.4		87	24	33	12	33	2.08		1.31	0.0	4	12	16	2		H. S. Richardson.
Guinda	Yolo	350	12																	Southern Pacific Co.
Hanford	Kings	249	10																	Santa Fe Co.
Healdsburg	Sonoma	110	17	59.8	+ 4.9	94	23	35	7	44	0.75	− 1.55	0.53	0.0	2	18	8	4	s.	John Favour.
Hearst	Mendocino	1,800	....	58.0		88	24	36	9	41	1.22		0.65	0.0	3	18	7	5		H. D. Ellmaker.
Heber	Imperial	− 20	4	72.6		108	25	43	1	51	0.00		0.00	0.0	0	30	0	0	w.	E. T. Chumard.
Hollister	San Benito	284	36	57.2	− 1.0	94	22	37	4	52	0.50	− 0.63	0.33	0.0	2	15	8	7	w.	J. N. Thompson.
Hornbrook	Siskiyou	2,154	22																	Southern Pacific Co.
Hot Springs	Tulare	3,300	3	56.9		89	25	35	12	40	1.15		0.58	0.0	4	20	2	8		U. S. Forest Service.
Hullville (near)	Lake	2,250	3	55.0		91	22	30	4†	53	0.65		0.29	0.0	3	4	22	4	nw.	John Duggan.
Idyllwild	Riverside	5,250	9	53.0		91	23	25	12	42	0.33		0.27	0.0	2	22	3	5	sw.	Earl Powers.
Independence	Inyo	3,907	14	59.8	+ 3.1	87	26	35	4†	42	0.31	+ 0.11	0.31	0.0	1	17	13	0	nw.	U. S. Weather Bureau.
Indio	Riverside	− 20	32	76.0	+ 3.5	107	24	43	2	48	0.00	− 0.04	0.00	0.0	0	19	11	0	nw.	F. N. Johnson.
Inskip	Butte	4,975	3	50.0		76	15†	30	28†	36	2.12		1.25	1.5	2	16	8	6		Cal. Gas & Electric Co.
Ione	Amador	287	32	62.7	+ 4.0	93	25	45	4†		0.45	− 1.85	0.35	0.0	2	25	0	5	sw.	Southern Pacific Co.
Iowa Hill	Placer	2,825	29	57.8	+ 4.1	88	23	36	12	34	2.05	− 3.85	1.01	0.0	5	17	6	7	sw.	C. F. Macy.
Jamestown	Tuolumne	1,471	7	59.0		94	24	35	12	46	1.40		0.60	0.0	3	24	4	2		Sierra Ry. of California.
King City	Monterey	333	23	59.8	+ 3.6	98	23†	32	4	60	0.09	− 0.43	0.05	0.0	2	27	0	3	s.	Southern Pacific Co.
La Porte	Plumas	5,000	16	47.8	+ 6.5	75	22†	29	11†	38	2.98	− 2.43	1.28	4.0	8	17	8	5	n.	C. W. Hendel.
Le Grand	Merced	235	10	60.7	+ 4.9	98	32	41	14†	50	0.83	− 0.02	0.53	0.0	2	26	0	4		Santa Fe Co.
Lemon Cove	Tulare	600	15	69.0	+ 6.8	110	24	35	11	52	0.70	− 1.03	0.61	0.0	2	21	3	6	w.	G. W. Sandidge.
Lick Observatory	Santa Clara	4,209	21	50.9	+ 4.9	78	23†	30	28	26	0.91	− 2.34	0.61	0.0	4	15	10	5	n.	The Director.
Livermore	Alameda	485	39																	E. G. Still.
Lodi	San Joaquin	45	28	59.8	+ 1.5	91	24	38	4†	41	0.15	− 1.12	0.11	0.0	2	18	10	2	w.	Ezra Fiske.

TABLE 1.—*Climatological data for April, 1910. District No. 11*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
California—Cont'd.																				
Lone Pine	Inyo	2,728	5	57.0	.....	90	30	31	1	51	0.20	.....	0.20	0.0	1	24	4	2	s.	G. F. Marsh.
Long Valley	Lassen	4,400	1	52.6[e]		85[e]	23	24[e]	4	44[e]	0.27	.....	0.25	0.0	2	11	11	8	sw.	A. G. Evans.
Los Angeles	Los Angeles	293	33	63.6	+ 6.0	100	23	47	12	35	0.30	− 1.06	0.30	0.0	1	15	10	5	sw.	U. S. Weather Bureau.
Los Banos	Merced	121	23	65.8	+ 2.4	91	23	54	2†	....	0.00	− 0.61	0.00	0.0	0	23	6	7	n.	Southern Pacific Co.
Los Gatos	Santa Clara	600	23	57.4	+ 1.4	94	23	34	30	46	0.36	− 1.83	0.26	0.0	2	27	2	1	nw.	F. H. McCullagh.
Lytle Creek	San Bernardino	2,900	1	60.2[d]	.....	94[d]	23	31[d]	3	43[d]	0.42	.....	0.37	0.0	2	16	3	11	.....	W. E. Anderson.
Macdoel	Siskiyou	4,258	3	42.4[a]	.....	80[a]	17	9[a]	4	61[a]	1.65	.....	0.60	0.0	4	13	11	6	s.	Butte Valley L'd Co.
Madeline	Lassen	5,270	1	44.4	.....	84	24	20	4	52	0.32	.....	0.28	0.0	2	19	6	5	sw.	J. H. Williams.
Magalia	Butte	2,321	6	57.0	.....	91	24	34	11	†41	1.17	.....	0.98	0.0	3	22	4	4	se.	Butte County R. R. Co
Mammoth Tank	Imperial	257	32	75.2	− 0.2	106	24	49	2†	48	0.00	− 0.06	0.00	0.0	0	30	0	0	w.	Southern Pacific Co.
Marysville	Yuba	67	39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Do.
Mecca	Riverside	− 185	4	73.2	.....	104	24	42	2†	48	0.00	.....	0.00	0.0	0	23	7	0	nw.	A. Lunsted.
Menlo Park	San Mateo	64	32	59.8	+ 2.7	88	23	44	5†	....	0.18	− 1.32	0.18	0.0	1	20	0	10	n.	Southern Pacific Co.
Merced	Merced	173	36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Santa Fe Co.
Mill Creek (1)	Amador	.....	3	54.2	.....	85	24	34	12	40	1.61	.....	0.97	0.0	4	21	4	5	n.	Cal. Gas & Electric Co.
Milton (near)	Calaveras	660	19	63.4	+ 4.8	93	24	42	13	33	0.68	− 1.34	0.34	0.0	2	20	8	2	nw.	J. H. Southwick.
Modest	Stanislaus	90	38	62.0	− 0.2	92	24	44	6	....	0.00	− 0.92	0.00	0.0	0	24	0	6	.....	Southern Pacific Co.
Mojave	Kern	2,751	33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Do.
Mokelumne Hill	Calaveras	1,550	17	59.8	+ 7.4	92	24	40	12	31	1.08	− 2.10	0.50	0.0	4	18	0	12	.....	C. E. Prindle.
Mono Ranch	Ventura	3,210	4	55.8	.....	86	23	35	1†	42	0.15	.....	0.08	0.0	2	25	3	2	w.	H. Lathrop.
Montague	Siskiyou	2,450	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. H. Chambers.
Monterey	Monterey	15	45	62.1	+ 6.3	86	22	50	5†	....	0.47	− 1.12	0.31	0.0	2	26	3	1	e.	Southern Pacific Co.
Monterio	Kern	4,500	11	54.1	+ 1.9	82	25	32	12	36	0.57	− 1.42	0.55	0.0	2	22	4	4	nw.	John C. Knecht.
Monumental	Del Norte	.....	5	50.1	.....	86	22†	29	2†	44	3.49	.....	0.96	0.0	9	18	0	12	.....	G. F. Morgan.
Mount Tamalpais	Marin	2,375	11	54.0	+ 4.5	83	23	37	11	24	0.68	− 1.32	0.40	0.0	6	15	7	8	nw.	U. S. Weather Bureau.
Napa City	Napa	20	33	56.6	+ 0.7	91	21	37	3†	45	0.54	− 1.70	0.29	0.0	2	18	11	1	s.	Thomas Hull.
Napa (S. H.)	...do	60	32	58.2	+ 2.3	90	23	40	7†	41	0.37	− 1.90	0.25	0.0	2	14	13	3	sw.	W. H. Martin.
Needles	San Bernardino	477	18	74.8	+ 2.6	103	28	47	1	47	.....	.....	.....	.....	.....	28	1	1	w.	Santa Fe Co.
Nellie	San Diego	5,350	1	.....	.....	.....	.....	.....	.....	.....	1.08	.....	1.08	2.0	1	.....	.....	.....	.....	C. J. Bailey.
Nevada City	Nevada	2,580	18	55.4	+ 5.6	94	24	30	4	52	1.72	− 2.98	0.94	0.0	6	21	0	9	sw.	S. W. Marsh.
Newcastle	Placer	970	17	68.4	+10.2	97	24†	34	6	51	1.17	− 1.12	0.50	0.0	4	15	13	2	se.	George D. Kellog.
Newhall	Los Angeles	1,200	33	60.6	+ 1.7	102	24	42	3	....	0.37	− 0.66	0.37	0.0	1	26	0	4	ne.	Southern Pacific Co.
Newman	Stanislaus	91	21	63.6[e]	+ 0.5	96[d]	24	40[e]	11	48[e]	0.18	− 0.66	0.09	0.0	3	21	0	9	n.	E. S. Wangenheim.
Nimshew	Butte	2,500	6	56.2	.....	89	24	36	4†	40	0.94	.....	0.50	0.0	3	24	2	4	.....	Cal. Gas & Electric Co.
North Bloomfield	Nevada	3,200	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. G. Shand.
North Fork	Madera	3,000	6	57.2	.....	93	24	31	12	47	0.98	.....	0.49	0.0	3	15	11	4	sw.	G. H. Shinn.
Oakdale	Stanislaus	156	16	60.9	+ 1.6	95	23†	44	4	....	0.34	− 1.00	0.18	0.0	4	23	2	5	nw.	Southern Pacific Co.
Oakland	Alameda	36	34	59.0	+ 3.6	84	22†	46	12	35	0.27	− 1.73	0.14	0.0	4	16	9	5	w.	Chabot Observatory.
Oceanside	San Diego	.....	.....	64.0	.....	89	22	47	1	29	0.07	.....	0.06	0.0	2	11	15	4	w.	H. D. Brodie.
Ojai Valley	Ventura	900	4	61.2	.....	100	23	37	12	54	0.26	.....	0.18	0.0	2	23	4	3	sw.	W. H. Duncan.
Orland	Glenn	254	28	63.0	− 0.4	96	23	41	2	43	0.12	− 1.29	0.12	0.0	1	25	2	3	se.	W. W. Patch.
Orleans	Humboldt	520	7	63.5	.....	101	24	36	4	53	0.88	.....	0.56	0.0	7	17	6	7	.....	Fred T. Hale.
Oroville (near)	Butte	250	26	63.6	+ 2.9	95	22†	40	11	45	0.26	− 2.01	0.26	0.0	1	18	6	6	s.	E. D. Fairchild.
Palermo	...do	213	19	61.4	+ 2.9	96	23	37	11	49	T.	− 1.66	T.	0.0	0	17	12	1	s.	Miss Hettie Boalt.
Palm Springs	Riverside	584	21	73.2	− 1.4	104	24	50	10	....	0.00	0.00	0.00	0.0	0	19	10	1	w.	Southern Pacific Co.
Pasadena	Los Angeles	827	20	62.8	+ 2.7	101	20	40	12	50	0.32	+ 0.04	0.30	0.0	2	23	4	3	sw.	E. R. Sorver.
Paso Robles	San Luis Obispo	800	23	59.4	+ 1.5	99	24	35	16	54	0.22	− 0.38	0.16	0.0	2	25	2	3	nw.	Dr. F. W. Sawyer.
Peachland	Sonoma	190	14	56.4	+ 0.2	93	22	34	7†	47	0.81	− 1.40	0.38	0.0	4	20	8	2	sw.	E. H. Parnell.
Penstock Camp	Tuolumne	3,750	3	58.0	.....	86	24†	36	11	33	1.46	.....	0.78	0.0	4	21	3	6	n.	Tuolumne W. P. Co.
Placerville	El Dorado	1,875	21	54.8	+ 3.7	84	24	36	4†	40	1.17	− 3.74	0.53	0.0	3	23	3	4	sw.	A. Baring-Gould.
Point Lobos	San Francisco	250	17	56.2	+ 4.2	84	23	46	18†	28	0.14	− 0.98	0.06	0.0	4	13	7	10	nw.	John Hyslop.
Point Reyes	Marin	490	18	51.5	+ 1.3	83	22	44	24	38	0.39	− 1.18	0.20	0.0	6	10	9	11	nw.	U. S. Weather Bureau.
Porterville	Tulare	464	21	65.3	+ 1.3	101	15	44	30	45	0.34	− 0.19	0.28	0.0	2	14	14	2	.....	Harry E. Cowie.
Quincy	Plumas	3,400	15	55.4	+ 7.8	81	24	24	4†	55	T.	− 2.63	T.	0.0	0	25	3	2	sw.	D. N. Rogers.
Red Bluff	Tehama	307	33	63.0	+ 3.9	92	23	43	3	36	6.15	− 2.01	0.15	0.0	2	19	6	5	se.	U. S. Weather Bureau.
Redding	Shasta	552	35	63.4	+ 3.2	88	23†	42	3	34	0.32	− 2.69	0.10	0.0	5	18	3	9	n.	L. F. Bassett.
Redlands	San Bernardino	1,352	17	64.2	+ 3.1	100	23	41	12	48	0.25	− 0.30	0.25	0.0	1	15	10	5	w.	Paul W. Moore.
Reedley	Fresno	347	10	65.6	+ 4.9	104	24	43	29	52	0.30	− 1.20	0.23	0.0	2	20	5	5	n.	Santa Fe Co.
Rialto (near)	San Bernardino	2,250	4	65.2	.....	96	24	45	30	29	0.43	.....	0.28	0.0	2	23	2	5	se.	So. California Edison Co
Riverside	Riverside	851	28	63.3	+ 2.9	103	23	41	1†	51	0.18	− 0.15	0.17	0.0	2	20	1	9	w.	C. W. Barton.
Rocklin	Placer	249	39	62.6	+ 2.2	95	24	42	4†	39	0.83	− 1.04	0.45	0.0	4	21	2	7	se.	Southern Pacific Co.
Rohnerville	Humboldt	75	7	52.4	.....	69	22	34	6	28	1.01	.....	0.33	0.0	4	15	5	10	n.	Dr. R. Callahan.
Sacramento (1)	Sacramento	71	33	60.8	+ 2.8	89	24	44	29	32	0.11	− 2.17	0.10	0.0	2	19	8	3	s.	U. S. Weather Bureau.
Sacramento (2)	...do	35	57	61.2	+ 1.9	87	24	42	4	31	0.18	− 1.57	0.15	0.0	2	18	8	4	sw.	S. H. Gerrish.
St. Helena	Napa	255	2	58.6	.....	93	23	35	7	45	0.57	.....	0.47	0.0	2	19	3	8	n.	B. F. Kettlewell.
Salinas	Monterey	40	36	59.4	+ 3.6	98	23	38	29	44	0.19	− 1.14	0.17	0.0	2	24	6	0	w.	Miss E. Ruth Abbott.
San Bernardino	San Bernardino	1,054	18	64.0	+ 4.5	103	23†	37	1†	59	0.14	− 1.10	0.13	0.0	2	17	9	4	sw.	Dr. A. K. Johnson.
San Diego	San Diego	93	39	61.7	+ 3.5	96	23	47	2	34	0.08	− 0.68	0.08	0.0	2	20	6	4	nw.	U. S. Weather Bureau.
San Francisco	San Francisco	207	39	57.1	+ 3.4	87	23	46	18	32	0.31	− 1.66	0.23	0.0	4	20	5	5	w.	Do.
San Jacinto	Riverside	1,550	17	64.8	+ 7.5	101	24	39	2	52	0.00	− 0.71	0.00	0.0	0	25	0	5	w.	E. T. Tanner.
San Jose	Santa Clara	95	35	58.1	+ 1.4	90	23	38	29	43	0.41	− 0.95	0.40	0.0	2	17	9	4	nw.	U. S. Weather Bureau.
San Leandro	Alameda	48	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. B. Sanford.
San Luis Obispo	San Luis Obispo	201	15	58.3	+ 3.1	96	23	42	12	43	0.23	− 1.74	0.13	0.0	4	18	6	6	nw.	U. S. Weather Bureau.
San Mateo	San Mateo	22	36	62.3	+ 5.5	88	23	50	13	....	0.13	− 1.63	0.11	0.0	2	19	8	3	nw.	Southern Pacific Co.
San Miguel	San Luis Obispo	616	23	64.2	+ 5.9	94	23	45	8	....	0.22	− 0.26	0.17	0.0	2	13	5	12	n.	Do.
San Miguel Island	Santa Barbara	500	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Capt. W. G. Waters.
Sanger	Fresno	371	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Southern Pacific Co.
Santa Barbara	Santa Barbara	130	26	61.2	+ 2.8	97	23	43	14	46	0.39	− 0.79	0.37	0.0	2	24	2	4	w.	George W. Russell.
Santa Clara	Santa Clara	90	21	58.6	+ 2.9	92	23	34	29	47	0.31	− 0.82	0.26	0.0	2	20	3	7	nw.	Santa Clara College.
Santa Cruz	Santa Cruz	20	37	57.5	− 0.3	94	23	38	7	44	0.50	− 1.81	0.32	0.0	3	24	3	3	s.	W. R. Springer.
Santa Magarita	San Luis Obispo	996	21	62.8	+ 6.9	88	22	35	5†	....	T.	− 1.25	T.	0.0	0	25	0	5	nw.	Southern Pacific Co.
Santa Maria	Santa Barbara	220	22	62.4	+ 4.6	87	23†	44	3†	32	0.01	− 0.87	0.01	0.0	1	22	1	7	w.	L. E. Blochman.
Santa Monica	Los Angeles	110	25	57.0	− 4.3	95	23	44	2†	37	0.22	− 0.22	0.22	0.0	1	19	4	7	w.	W. D. Ingham.
Santa Rosa	Sonoma	181	21	56.4	0.0	90	23	34	4†	44	0.85	− 0.99	0.37	0.0	4	17	7	6	sw.	M. L. McDonald, jr.
Selma	Fresno	311	24	67.0	+ 4.6	96	24	50	5	....	0.35	− 0.32	0.20	0.0	3	17	9	4	nw.	Southern Pacific Co.
Shasta	Shasta	1,049	14	61.6	+ 3.1	96	23	34	5	50	0.48	− 3.81	0.31	0.0	4	22	2	6	nw.	Dr. T. J. Edgecomb.
Sierra Madre	Los Angeles	1,400	13	64.0	+ 4.3	98	23	44	12	38	0.22	− 1.26	0.18	0.0	3	20	7	3	s.	Miss A. E. Carter.
Sierraville	Sierra	5,000	....	49.0	.....	82	22	21	4	52	0.09	.....	0.06	0.0	2	18	6	6	se.	C. D. Johnson.
Sisson	Siskiyou	3,555	21	48.7	+ 0.9	79	24	25	3	42	2.10	− 0.74	1.80	0.0	4	20	8	2	s.	Southern Pacific Co.
Soledad	Monterey	188	36	67.3	+10.0	98	23	50	5	....	0.12	− 0.53	0.09	0.0	2	20	0	10	n.	Do.
Southeast Farallon	San Francisco	30	7	51.1	.....	60	5	45	15	10	0.25	.....	0.24	0.0	2	8	10	12	nw.	U. S. Weather Bureau.
Sonora	Tuolumne	1,825	22	59.2	.....	90	24	38	12	40	1.77	− 0.92	0.81	0.0	3	19	10	1	w.	Charles P. Jones.
Stirling City	Butte	3,525	6	55.1	.....	83	25	33	3	38	0.40	.....	0.40	0.0	1	25	4	1	se.	Butte County R. R. Co.
Stockton (S. H.)	San Joaquin	23	39	59.0	+ 0.1	89	24	38	4	34	0.13	− 1.16	0.06	0.0	3	25	4	1	nw.	State Hospital.
Storey	Madera	296	10	61.8	+ 5.0	99	24	40	1†	50	0.49	− 0.36	0.25	0.0	2	26	0	4	nw.	Santa Fe Co.
Suisun	Solano	20	30	61.5	+ 1.6	81	19	48	30	....	0.05	− 1.54	0.05	0.0	1	27	0	3	w.	Southern Pacific Co.
Summerdale	Mariposa	5,270	14	.....	.....	.....	.....	.....	.....	.....	1.39	− 2.69	0.75	0.0	4	.....	.....	.....	.....	J. H. Lowry.

TABLE 1.—*Climatological data for April, 1910. District No. 11*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
California—Cont'd.																			
Summit	Placer	7,017	37	43.4	+ 7.9	71	25	24	29	29	0.68	− 4.51	0.60	8.0	2	20	2	8	sw.	Southern Pacific Co.
Susanville	Lassen	4,175	21	49.4	+ 2.1	83	24†	20	5	46	0.08	− 1.29	0.07	0.0	2	17	13	0	sw.	James Branham.
Tamarack	Alpine	8,000	4	49.2	.....	69	19	11	30	49	0.62	.....	0.40	5.0	2	21	6	3	sw.	William Bennett.
Tehachapi	Kern	3,964	33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Southern Pacific Co.
Tehama	Tehama	220	39	72.4	+11.7	87	24	61	12	....	0.18	− 1.26	0.18	0.0	1	25	0	5	n.	Do.
Three Rivers	Tulare	870	....	62.6	.....	99	24	40	3†	51	0.54	.....	0.53	0.0	2	16	7	7	sw.	E. D. Barton.
Towle	Placer	3,704	24	53.6	+ 3.5	85	24	32	29	39	2.27	− 2.26	1.20	0.0	3	24	4	2	s.	Southern Pacific Co.
Tracy	San Joaquin	64	30	60.4	− 0.5	80	23	48	2†	....	0.00	− 0.95	0.00	0.0	0	21	5	4	nw.	Do.
Ukiah	Mendocino	620	17	58.8	+ 3.8	92	23	34	7	50	0.86	− 1.93	0.60	0.0	2	14	14	2	nw.	Dr. George McGowen.
Upland	San Bernardino	1,750	13	62.0	+ 4.6	98	24	39	12†	46	0.20	− 1.00	0.20	0.0	1	18	10	2	w.	A. P. Harwood.
Upper Lake	Lake	1,350	25	56.2	+ 1.6	87	24	38	3†	39	0.58	− 1.35	0.39	0.0	3	21	4	5	nw.	C. M. Hammond.
Vacaville	Solano	175	22	59.8	+ 0.8	92	23	37	12	45	0.21	− 2.23	0.18	0.0	2	17	12	1	sw.	G. O. Coburn.
Valley Springs	Calveras	673	21	66.3	+ 6.1	92	23	53	11†	....	0.59	− 1.54	0.30	0.0	2	20	7	3	nw.	Southern Pacific Co.
Visalia	Tulare	334	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Santa Fe Co.
Warner Springs	San Diego	3,165	2	59.0	.....	91	24	36	1	43	0.12	.....	0.12	0.0	1	.....	.....	.....	.....	Mrs. E. F. Sanford.
Wasco	Kern	336	10	59.2	0.0	99	24	31	11†	49	0.16	− 0.45	0.16	0.0	1	27	0	3	.....	Santa Fe Co.
Watsonville	Santa Cruz	23	14	59.6	+ 3.0	89	22	45	4†	42	0.31	− 1.38	0.22	0.0	2	11	12	7	w.	Spreckels Sugar Co.
Westley	Stanislaus	90	21	67.9	+ 3.7	92	23†	52	11	....	0.00	− 0.67	0.00	0.0	0	27	0	3	n.	Southern Pacific Co.
Wheatland	Yuba	84	23	60.5	+ 2.1	88	23†	40	4†	37	0.25	− 1.19	0.20	0.0	3	15	6	9	s.	Wm. Lumbard.
Willows	Glenn	136	31	61.0	+ 0.7	89	23	41	3	36	0.16	− 1.18	0.15	0.0	2	19	2	9	se.	M. T. Harrington, jr.
Yosemite	Mariposa	3,945	6	53.0	.....	89	22	28	4†	54	1.15	.....	0.73	0.0	4	14	16	0	sw.	C. W. Tucker.

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for April, 1910. District No. 11, California.*

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Oregon.																																	
Klamath Agency	Klamath										.07																			.14	.07		0.28
Klamath Falls	do																				T.								.02	.01	.28		0.40
Lakeview	Pitt	.09																												T.	.03		0.63
Merrill	Interior Drainage									T.																			.05	.15	.10		0.30
Yonna	do																																
California.																																	
Aguanga	Coast								.05				.09																				0.14
Alameda	do										.01									.02										.01			0.04
Alturas	Sacramento						.05														.07										.14		0.26
Anderson	do						T.			T.	.10	.05									T.								.02	.10		0.27
Angles Camp	San Joaquin					.11					.46																	.51				1.08
Angiola	do																																
Antioch	do										.10																						0.10
Aptos	Coast											.51	.15																				0.66
Arrowhead Springs	do																																0.00
Auburn	Sacramento											.60									T.								1.10	.10			1.80
Avalon	Ocean											.16																					0.16
Azusa	Coast																																
Bagdad	Desert																																0.00
Bakersfield	San Joaquin																																0.00
Barstow	Desert																																0.00
Bear River	San Joaquin																																
Bear Valley (1)	Sacramento	.36									1.15									.12								1.02	.32	.20			3.17
Bear Valley (2)	San Joaquin																																
Bear Valley Dam	Coast					.10						.42																					0.52
Ben Lomond	do										.70	.04																					0.74
Berkeley	do											.34								.02										.05			0.41
Big Bar	Sacramento																																
Biggs	do																																0.00
Bishop	Owens																																
Bishop Creek	do																																
Blocksburg	Coast	T.	.13								.37	.30							T.											.14	.20		1.14
Blue Canyon	Sacramento											.23																	1.00		.25		1.48
Blythe	Desert												.18																				0.18
Boulder Creek	Coast											1.17	.04																				1.21
Bowmans Dam	Sacramento			.08								.90									.14								1.20		.34		2.66
Branscomb	Coast		.15	.01							.87	1.05								.09										.25	.08		2.50
Brawley	Desert					T.	T.		T.				T.																				T.
Brush Creek	Sacramento	T.									.28	.65								T.											.54		1.47
Burney	do											.15										.05									.14		0.34
Butte Creek House	do																																
Butte Valley	do		.06								.29	.42																	T.	T.	.46		1.18
Calexico	Desert																																0.00
Caliente	San Joaquin											.70																					0.70
Calistoga	Coast										.85	.15									.09									.05			1.14
Campbell	do										.09	.08								T.											T.		0.17
Campo	do											.32																					0.32
Camptonville (near)	Sacramento		.10	.10							.06	.90																.09	.02		.21		1.48
Cedarville	Mountain Lakes	T.	.22				T.																						T.	.16	.32		0.70
Chester	Sacramento																																
Chico	do										.23																				T.		0.23
Chico (near)	do										.26	T.																		T.			0.26
China Flat	Coast		T.							T.	.25	T.																		.19			0.44
Chino	do											.26																					0.26
Cisco	Sacramento											.50																	T.		T.		0.50
Claremont	Coast			.03	.01					.01			.18	T.																			0.23
Clear Lake	Klamath																																
Cloverdale	Coast										1.00									.02													1.02
Colfax	Sacramento																																
Colgate	do			.02								.53	.01																		.05		0.61
Colusa	do	.08									.09																						0.17
Corning	do										.35																			.11			0.46
Corona	Coast																																0.00
Crockers	San Joaquin							.02																				1.90	.20				2.12
Cuyamaca	Coast					.10	.02					.80																					0.92
Daunt	San Joaquin			.05		T.	T.					.60	.03																				0.68
Davisville	Sacramento										13																						0.13
Deer Creek	do			.08								1.24									.04							.15	1.03		.38		2.92
Delta	do										.94	1.20																					2.14
Denair	San Joaquin						.56					.10																	.06				0.72
Descanso	Coast																																
Dinuba	San Joaquin										18																	.07					0.25
Dobbins	Sacramento			.02							.15	.38	T.								T.							.01		.25			0.81
Dorris	Klamath																																
Downieville	Sacramento					T.						.89									.05								.76		.66		2.38
Dudleys	San Joaquin					T.	.07				1.42																	.11	.47				2.07
Dunnigan	Sacramento												.54																				0.54
Dunsmuir	do										.46	1.27									.08												1.81
Durham	do										18																				.02		0.20
Dyerville	Coast										1.25	.25																			.30		1.80
Edgewood	Klamath										.80									.06										.12			0.98
Edison	San Joaquin																																
El Cajon	Coast			.02			.13					.05	.04																				0.24
Electra	San Joaquin											.68																	.50		.05		1.23
Elsinore	Coast											.35																					0.35
Emigrant Gap	Sacramento																			T.								.85		.23			1.08
Escondido	Coast			.42								.11	.05																				0.58
Eureka	do	.12	.08							.07	.14	.04	.01							.05	.02				.01					.29			0.83
Fairmont	do											.55																					0.55
Farmington	San Joaquin						.05					.02	.05																.05				0.17
Felton	Coast											.43																					0.43
Firebaugh	San Joaquin											.11																	.10				0.21
Folsom	Sacramento											.28									.02								.26		.01		0.57
Fordyce Dam	do			T.			T.				.06	.50																.08	.90		.40		1.94
Fort Bragg	Coast			T.							1.92	.50																		.40			2.82
Fort Ross	do			.08							.72	.64	.01							.14										.16			1.75
Fouts Springs	Sacramento		T.				T.		T.	T.	.46	.58								T.									T.				1.04
Fredalba	Coast						.09		T.			.80	.30																					1.19
Fresno	San Joaquin					T.					.03	.02								T.								22					0.27
Fruto	Sacramento										T.																						T.
Galt	San Joaquin											.12																	.05				0.17
Georgetown	do		.04								.83	.03									.08								.57		.33		1.88
Gilroy	Coast																																

TABLE 2.—*Daily precipitation for April, 1910. District No. 11*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
California—Cont'd.																																	
Gilta	Coast										.12																		.28	.11		0.51
Glendora	do																																
Glen Ranch	do												.27																				0.27
Glennville	San Joaquin			.06			.08				.30	1.80																					2.24
Glenwood	Coast										.75	.10																					0.85
Gold Run	Sacramento										.85	.12									T.								.90		T.		1.87
Gonzales	Coast											.20	.05																				0.25
Grass Valley	Sacramento											.90	.05								.04						T.	.41		.21		1.61
Greenville	do		T.			T.						.42																	T.	.20		0.62
Gridley	do	.08										.15																					0.23
Groveland	San Joaquin						.30				T.	1.31															T.	.15	.32				2.08
Guinda	Sacramento																																
Hanford	San Joaquin																																
Head Dam	Sacramento			.06								.82																			.22		1.10
Healdsburg	Coast										.53	.22								T.													0.75
Hearst	do										.45	.65																			.12		1.22
Heber	Desert																																0.00
Helen Mine	Coast										1.06	1.12									.08										.17		2.43
Hesperia	Desert																																0.00
Holcomb	Coast						.34	T.				.02	.03																				0.39
Hollister	do											.17	.33																				0.50
Hornbrook	do																																
Hot Springs	San Joaquin			.04			.04					.49	.58																				1.15
Hullville	Coast										.29	.26								T.											.10		0.65
Idyllwild	do								.06			.27																					0.33
Independence	Owens											.31															T.						0.31
Indio	Desert																																0.00
Inskip	Sacramento										T.	1.25																			.87		2.12
Ione	San Joaquin											.35																	.10				0.45
Iowa Hill	Sacramento											1.01									.06						.10	.57		.31		2.05
Isabella	San Joaquin																																0.00
Jacksonville	do						.38					.52																	.36				1.26
Jamestown	do						.35					.60																.45					1.40
Jenny Lind	do																											.20					0.20
Johnsville	Mountain Lakes																																
Jolon	Coast										.07	.24																.06					0.37
Julian	do												.70																				0.70
Kennedy Mine	San Joaquin																																0.73
Kennett	Sacramento												.32	.30							.10												0.72
Kentfield	Coast										.51	.25																					0.76
Kernville	San Joaquin																																0.00
King City	Coast						.04					.05	.05																				0.09
Knights Landing	Sacramento											.08	.02																				0.10
Knob	do			T.				.08				T.			.14	.03			.12			.05				T.	.12						0.54
La Grange	San Joaquin						.20					.40																.26					0.86
Lake Eleanor	do						.03					.56															.05	1.14					1.78
Lakeside	Coast																																0.00
La Porte	Sacramento		.34	.36			.02				T.	1.28									.07						.08	.02	T.	.79			2.96
Lathrop	San Joaquin						T.																					.02					0.02
Laurel	Coast											1.00																		T.			1.00
Laytonville	do										1.18																		.18				1.36
Le Grand	San Joaquin										.53																.30	T.					0.83
Lemon Cove	do					T.	T.				.61	.09																					0.70
Letter Box	Sacramento																																
Lick Observatory	Coast										*	*	.73																	.18		0.91
Livermore	do																																
Lodi	San Joaquin										.11																T.	.04					0.15
Lone Pine	Owens											.20																					0.20
Long Camp	San Joaquin						.03					1.18																.18	.51				1.90
Long Valley	Mountain Lakes		T.								T.																	.25		.02		0.27
Lordsburg	Coast												.21																				0.21
Los Alamos	do											.30																					0.30
Los Angeles	do					T.						.30																					0.30
Los Banos	San Joaquin																																0.00
Los Burros Mine	Coast					.04					.82	.07																.16					1.09
Los Gatos	do									.26	.10																						0.36
Los Vaqueros	do																																
Lowe Observatory	do			.02			.05					.20																					0.27
Lytle Creek	do			.05								.37																					0.42
McCloud	Sacramento																																0.00
Macdoel	Klamath	.10										.30								.60										.05			1.05
Madeline	Mountain Lakes						.04			T.																	T.		T.	.28			0.32
Magalia	Sacramento										.98	.10																	.09				1.17
Mammoth Tank	Desert																																0.00
Mariposa	San Joaquin						.05					.59	.11																.60				1.35
Marysville	Sacramento																																
Mecca	Desert																																0.00
Melones	San Joaquin						.24					.66	.02																.46				1.38
Menlo Park	Coast											.18																					0.18
Merced	San Joaquin																																
Merced Falls	do					.63					.40																.29						1.32
Mesa Grande	Coast						.06						.67																				0.73
Mill Creek (1)	San Joaquin											.97									.01							.55		.08			1.61
Mill Creek (2)	Coast			.02		T.	.07					.60	T.																				0.69
Mills College	do										.11	.33									.07									.17			0.68
Milo	San Joaquin											1.26																					1.26
Milton (near)	do					T.					.34															.34							0.68
Modesto	do																																0.00
Mojave	Desert																																
Mokelumne Hill	San Joaquin										.40	.10															.50				.08		1.08
Mono Ranch	Coast					.08						.07																					0.15
Montague	Klamath																																
Monterey	Coast											.31	.16																				0.47
Monterio	San Joaquin			.02									.55																				0.57
Montgomery Creek	Sacramento											.72	.09								.66									.16			1.63
Monumental	Coast	.96	.96						.25	.12	.25										.10					T.		.20	.30	.35			3.49
Morena Dam	do																																
Mount Tamalpais	do		.02	T.							.18	.35								.04	.01							T.		.08			0.68
Mount St. Helena	do											1.60																		T.			1.60
Napa City	do										.25	.29								T.										T.			0.54
Napa (S. H.)	do											.25	.12																T.				0.37
Needles	Desert																																
Nellie	Coast											1.08																					1.08
Nevada City	Sacramento			.05								.94	.06								.02							.52		.13			1.72

TABLE 2.—*Daily precipitation for April, 1910. District No. 11*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
California—Cont'd.																																	
Newcastle	Sacramento											.47									.06								.50		.14		1.17
Newhall	Coast											.37																					0.37
Newman	San Joaquin						.01		T.			.08																	.09				0.18
Nimshew	Sacramento		T.						.50	.32																				.12		0.94
North Bloomfield	do																																
North Fork	San Joaquin					T.	.24					.49																	.25				0.98
North Lakeport	Coast										.35																		.04				0.39
Oakdale	San Joaquin						.11					.02																.18			.03		0.34
Oak Grove	Coast						.06		T.			.19																					0.25
Oakland	do										.14	.05								.05										.03		0.27
Oakville	do											.78	.06																			0.84
Oceanside	do			T.		.01						.06																				0.07
Ojai Valley	do					.08		T.	T.			.18																				0.26
Orland	Sacramento										.12																					0.12
Orleans	Klamath	.03	.05							.02	.06	.11								.03									.56				0.88
Oroville	Sacramento									.26																							0.26
Ozena	Coast																		T.							T.				T.	T.		T.
Palermo	Sacramento																																0.00
Palm Springs	Desert																												.11				0.46
Parkfield	Coast					.11						.24																					0.32
Pasadena	do									.02		.30																	.16				0.22
Paso Robles	do											.06																		.07	T.		0.81
Peachland	do										.38	.32								.04													1.46
Penstock Camp	San Joaquin					.09						.78	.03															.56					0.00
Peyton	Sacramento																												.44				1.33
Phoenix Dam	San Joaquin						.15					.74								T.	.08							.06	.70	T.	.46		2.65
Pilot Creek	Sacramento											1.35																					
Pine Crest	Coast																			.70									.20				0.90
Pittville	Sacramento																												.52				1.17
Placerville	do											.53	.12																		.03		0.14
Point Lobos	Coast			T.							.06	.04								.01													0.18
Point Loma	do				.04								.10	.02							.01	.01											0.29
Point Reyes	do		.01							.02	.13	.10								.09									.22		.04		0.36
Pollasky	San Joaquin										.14																						0.34
Porterville	do					.06						.28																	.09				0.30
Priest Valley	Coast						.06				.15																T.			T.		T.
Quincy	Sacramento										T.																						0.15
Red Bluff	do										.14	.01																	T.	.01	T.		0.32
Redding	do		T.				T.			T.	.09	.06								.06	.10												0.25
Redlands	Coast						T.					.25								...								.07					0.30
Reedley	San Joaquin											.23																	.27		.03		0.60
Represa	Sacramento										.33																						0.43
Rialto (near)	Coast			.15		T.	T.					.28																					0.00
Rio Vista	Sacramento																																0.18
Riverside	Coast			.01								.17																					0.83
Rocklin	Sacramento											.45	.13																.20		.05		1.01
Rohnerville	Coast										.33	.13																		.25	.30		
Round Valley	Owens																														.01		0.11
Sacramento (1)	Sacramento										.10									T.							T.				.03		0.18
Sacramento (2)	do										.15																						0.57
Saint Helena	Coast											.47	.10																				0.19
Salinas	do											.17	.02																				0.14
San Bernardino	do			T.		.01						.13																					0.08
San Diego	do			T.			T.					.02	.06																				0.31
San Francisco	do		T.								.18	.08								.01											.04		0.00
San Jacinto	do																														T.		0.41
San Jose	do										.11	.30																					0.23
San Leandro	do																											.04					0.13
San Luis Obispo	do					.06					.10	.03																					0.22
San Mateo	do										.11	.02																.17					
San Miguel	do										.05																						0.39
San Miguel Island	Ocean																																0.31
Sanger	San Joaquin																																0.50
Santa Ana River	Coast											.37																					0.01
Santa Barbara	do					.02					.05	.26								T.													0.22
Santa Clara	do										.32	.03																	T.		.15		0.55
Santa Cruz	do																																0.28
Santa Margarita	do					T.																											0.35
Santa Maria	do					.01																											0.38
Santa Monica	do					T.						.22																					0.48
Santa Rosa	do										.32	.37								.04											.12		0.75
Sausalito	do										.15																			.13			0.22
Selma	San Joaquin					T.						.11	.04																.20				0.75
Seven Oaks	Coast											.38																					0.22
Shasta	Sacramento										.31	.09																.06	.02				0.48
Shingle Springs	San Joaquin											.75																					0.75
Sierra Madre	Coast		.02		.02							.18																					0.22
Sierraville	Mountain Lakes											.06																	.03				0.09
Sisquoc Ranch	Coast								.10		1.80										.10									.10			2.10
Sisson	Sacramento											.09															.03						0.12
Soledad	Coast						.50					.81																T.	.46				1.77
Sonora	San Joaquin										.18	.07																					0.25
Southeast Farallon	Ocean											.15	.10																				0.25
Spreckels	Coast											.48	T.																				0.48
Squirrel Inn	do			T.		T.	T.																										0.40
Stirling City	Sacramento										.40																	T.	.04				0.13
Stockton (S. H.)	San Joaquin						.03					.06																	.24				0.49
Storey	do										.25																						0.05
Suisun	Sacramento										.05																	.01	.59				1.39
Summerdale	San Joaquin						.04					.75																	.08				0.68
Summit (1)	Sacramento											.60																					0.00
Summit (2)	Coast																																0.42
Surrey	do					.01					.41																				.07		0.08
Susanville	Mountain Lakes	.01																															0.02
Tamarack	Sacramento										.22																				.40		
Tehachipi	San Joaquin																																0.18
Tehama	Sacramento											.18																					0.54
Three Rivers	San Joaquin					T.	.01					.53																	T.				2.27
Towle	Sacramento			T.							1.20										.20								87				0.00
Tracy	San Joaquin																																0.24
Tulare	do					.02						.22																					0.34
Tustin (near)	Coast												.34																				0.86
Ukiah	do										.60	.26																					0.20
Upland	do											.20																					

TABLE 2—*Daily precipitation for April, 1910. District No. 11*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
California—Cont'd.																																	
Upper Lake	Coast										.39	.15								T.										.04		0.58
Upper Matole	do		.02	.01								2.61									.02									.02	.19		2.87
Vacaville	Sacramento									.18	.03									T.													0.21
Valley Springs	San Joaquin											.29																	.30				0.59
Ventura	Coast																																
Visalia	San Joaquin																																
Warner Springs	Coast						.12	T.																									0.12
Wasco	San Joaquin											.16																					0.16
Watsonville	Coast										.22	.09																					0.31
Weaverville	Sacramento																																
Weitchpec	Klamath	.02	.39							.03	.22	.02									.11					T.				.55	.33		1.67
West Branch	Sacramento										.31	.55									.11					T.					1.10		2.07
Westley	San Joaquin																																0.00
West Point	do				T.							.93															T.			.51	.03	.03	1.50
West Satsoy	Coast											.35																					0.35
Wheatland	Sacramento										.20	.04									.01										T.		0.25
Willows	do										.15	.01								T.											T.		0.16
Woodleaf	do																																
Yosemite	San Joaquin				T.	.03					T.	.37	.02								T.						T.	.73		T.	T.		1.15
Yucaipa	Coast					.07	.03	.02				.14	.16																				0.42

TABLE 3.—*Maximum and minimum temperatures at selected stations for April, 1910. District No. 11, California.*

Date.	Lakeview, Oreg.		California.																							
			Alturas.		Barstow.		Branscomb.		Brawley.		Colusa.		Eureka.		Fresno.		Independence.		Los Angeles.		Mount Tamalpais.		Nevada City.		Porterville.		Red Bluff.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	61	29	56	29	80	38	59	38	90	43	73	50	54	46	80	50	72	37	83	53	58	43	67	36	81	48	71	52
2...	64	31	50	38	81	49	47	38	90	47	68	50	52	43	72	48	72	38	68	53	49	41	57	39	81	48	64	50
3...	65	33	50	24	76	50	62	31	84	59	65	50	51	38	68	44	75	42	63	55	57	37	69	33	76	48	66	43
4...	64	27	68	18	77	42	70	35	82	55	68	48	58	40	78	48	66	35	74	55	62	50	71	30	77	46	73	49
5...	64	18	67	23	76	50	67	37	81	50	68	46	51	45	73	50	65	35	64	54	55	45	74	38	69	52	74	48
6...	65	31	61	40	70	42	63	32	82	58	69	50	53	42	72	53	68	39	64	53	55	46	67	41	70	53	69	51
7...	59	39	68	30	75	45	65	30	87	52	69	47	57	40	77	47	72	39	66	48	59	46	71	35	82	48	70	50
8...	70	32	71	28	85	47	63	32	90	56	71	48	57	44	82	45	76	41	65	51	60	48	72	37	81	50	72	49
9...	61	32	67	33	86	47	64	36	90	60	70	49	60	48	81	48	76	45	64	54	57	43	71	38	81	48	65	50
10...	64	45	61	32	87	48	56	40	91	53	66	53	65	50	72	48	75	43	64	53	45	41	60	37	76	49	60	50
11...	65	33	60	30	73	46	58	39	76	55	62	45	60	48	64	47	64	41	60	50	45	37	54	37	67	52	60	48
12...	63	32	65	23	83	42	61	34	76	48	73	48	53	47	70	45	67	36	64	47	60	43	68	31	68	48	78	47
13...	60	23	61	23	84	44	64	37	81	48	76	49	52	47	74	49	76	42	65	53	64	48	71	34	76	51	75	53
14...	62	39	61	18	83	50	70	34	86	51	75	57	53	41	77	48	72	50	64	48	65	50	78	33	79	47	76	54
15...	68	24	74	20	76	53	79	40	80	54	79	53	57	42	83	49	76	44	74	51	72	59	80	33	92	51	83	50
16...	74	31	79	25	84	38	78	39	86	43	78	55	54	48	88	52	77	44	82	55	71	61	80	37	92	47	80	52
17...	79	39	83	25	88	43	75	38	94	48	82	65	63	45	93	55	81	42	90	57	74	61	83	42	91	53	87	54
18...	80	39	82	30	97	46	75	43	102	50	82	58	54	46	95	55	84	44	84	55	70	54	84	41	88	55	84	56
19...	79	50	78	42	99	48	79	38	101	53	76	55	56	48	84	53	83	52	71	49	55	42	73	43	85	46	74	56
20...	67	36	64	36	86	51	79	38	95	64	71	46	56	49	75	48	77	52	73	49	59	42	68	39	86	45	72	48
21...	71	31	77	24	88	45	84	36	97	59	81	56	53	49	86	50	79	45	87	56	69	53	80	36	94	50	86	54
22...	80	30	83	27	90	42	87	35	100	55	84	58	55	48	95	52	79	45	99	64	79	64	89	41	100	56	87	54
23...	82	39	85	32	98	46	87	47	104	54	88	55	55	46	100	57	83	44	100	67	83	68	93	41	101	58	92	56
24...	86	40	87	28	96	48	86	46	106	58	87	68	53	46	101	63	86	44	90	59	77	53	94	42	93	56	92	58
25...	90	45	82	32	99	52	71	34	103	57	83	56	60	48	91	55	86	44	76	51	58	40	86	45	77	50	76	57
26...	89	30	77	40	95	55	71	34	102	55	72	49	53	44	78	51	87	49	78	51	57	40	74	43	75	54	75	53
27...	80	54	70	33	95	54	57	38	101	58	71	52	54	47	73	54	78	52	77	54	53	38	68	43	56	54	70	53
28...	78	60	60	34	85	56	55	35	95	65	64	47	53	45	70	49	77	60	67	54	51	38	60	39	75	48	66	49
29...	76	60	60	19	81	49	52	33	91	61	71	48	58	44	75	45	72	44	68	49	55	42	66	31	74	46	70	48
30...	70	29	55	35	78	54	51	34	94	60	69	55	56	47	75	51	74	48	68	53	49	39	57	42	76	44	70	52
31...																												
Mns	71.2	35.9	68.7	29.0	85.0	47.3	67.8	36.7	91.2	54.3	73.7	52.2	55.5	45.4	80.1	50.3	75.8	43.9	73.7	53.4	60.8	47.1	72.8	37.9	80.6	50.0	74.6	51.5

Date.	California.																									
	Redlands.		Sacramento.		San Diego.		San Francisco.		San José.		San Luis Obispo.		Santa Barbara.		Santa Rosa.		Sisson.		Stockton.		Summit.		Susanville.		Yosemite.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1.....	81	46	69	50	77	54	61	50	70	43	78	45	78	47	72	40	50	31	65	50	42	30	68	34	69	30
2.....	78	45	63	48	59	47	57	49	63	43	63	51	78	47	68	39	49	29	60	48	45	35	68	22	67	30
3.....	62	54	64	48	60	54	62	48	66	46	61	48	65	52	72	36	50	25	59	44	46	34	50	31	66	31
4.....	80	47	69	47	64	55	74	50	75	41	68	43	67	50	72	34	49	31	67	38	35	27	59	26	56	28
5.....	67	47	68	54	63	55	61	52	67	46	57	51	62	54	66	39	51	31	68	47	53	28	56	20	64	40
6.....	59	48	66	50	63	53	57	50	65	46	61	49	61	53	60	46	59	36	67	47	53	35	61	41	72	33
7.....	75	43	69	46	63	51	57	48	64	40	74	47	67	47	63	34	69	31	67	46	56	28	69	36	73	36
8.....	80	45	71	45	61	52	60	49	66	45	70	43	66	53	64	40	64	44	67	44	57	29	66	35	75	35
9.....	73	53	70	48	62	55	58	50	66	47	58	48	66	54	63	41	64	43	67	44	58	30	67	40	66	35
10.....	72	47	59	51	62	55	58	51	61	51	56	48	60	53	57	51	51	34	67	46	40	32	61	34	65	34
11.....	57	48	61	46	61	54	54	48	56	47	55	44	63	51	58	45	50	30	66	47	42	28	54	34	55	32
12.....	63	41	71	47	61	49	62	49	66	46	58	42	70	47	69	37	49	30	67	45	48	30	67	32	64	28
13.....	66	48	75	49	63	52	64	50	72	41	70	45	64	46	70	40	61	33	68	45	52	32	66	32	70	30
14.....	71	51	73	53	62	53	71	50	74	41	73	48	65	43	78	40	60	31	68	48	52	34	60	29	78	32
15.....	82	48	79	54	71	55	79	52	82	43	76	48	75	46	83	41	60	31	77	48	48	32	65	26	80	33
16.....	85	47	80	53	76	52	76	49	82	43	80	45	80	47	80	41	68	38	82	50	55	32	76	33	81	33
17.....	93	48	81	57	79	55	74	47	84	47	76	43	80	46	83	43	72	35	83	54	63	37	77	38	80	35
18.....	95	51	80	53	74	55	58	46	68	50	67	45	73	50	68	44	70	36	78	53	63	36	80	40	81	34
19.....	86	52	65	49	66	51	61	50	70	51	64	47	74	51	64	44	70	36	68	48	67	38	73	45	80	37
20.....	81	44	70	47	67	52	63	51	68	48	70	50	81	47	75	45	62	30	67	48	52	32	66	38	7C	35
21.....	94	50	80	48	81	52	72	50	77	45	90	54	87	49	77	40	74	34	77	47	57	33	64	33	82	32
22.....	98	50	85	58	95	61	86	54	88	45	95	52	96	50	82	42	78	38	85	53	58	31	79	36	89	35
23.....	100	54	87	62	96	64	87	61	90	54	96	55	97	54	90	46	78	36	88	54	58	32	81	41	87	34
24.....	99	57	89	58	83	61	72	49	84	52	78	46	76	54	88	47	79	40	89	56	70	34	83	40	87	33
25.....	92	57	65	50	64	56	58	50	64	52	61	48	70	52	68	47	77	41	70	48	71	42	83	43	86	34
26.....	89	49	69	50	68	56	61	50	65	49	71	48	72	51	70	41	78	36	65	52	67	46	78	40	76	35
27.....	87	52	59	50	72	55	55	48	59	48	63	46	75	50	63	44	75	34	58	50	67	42	69	39	59	33
28.....	81	53	66	46	69	58	57	48	62	44	64	46	69	50	66	43	70	30	60	47	50	35	61	29	61	30
29.....	74	42	69	44	66	55	60	47	68	38	64	49	75	46	68	35	62	29	66	46	50	24	61	36	69	31
30.....	73	45	65	48	65	53	58	50	64	45	60	47	74	46	67	50	60	30	59	52	48	24	57	39	80	34
31.....																										
Means.....	79.8	48.7	71.2	50.3	69.1	54.3	64.3	49.9	70.2	46.0	69.2	47.4	72.9	49.5	70.8	41.9	63.6	33.8	69.8	59.0	54.0	32.7	67.5	31.2	72.9	33.2

Climatological Data for April, 1910.

DISTRICT No. 12, COLUMBIA VALLEY.

EDWARD A. BEALS, District Editor.

GENERAL CLIMATOLOGICAL CONDITIONS.

The month was a favorable one for nearly all purposes, and outdoor work, especially farming, proceeded with scarcely any interruption. The soil was easily worked and, while the rainfall was deficient, it fell opportunely, and vegetation made splendid progress. The mild weather was especially favorable for lambing, and practically no losses occurred. The season in the lowlands was from 2 to 3 weeks earlier than last year, while in the foothills in the Cascade Range it was not so far advanced, and in some localities in Washington it was reported as being slightly backward. No serious damage was done by frost, and the only losses occurred in localities where no protective measures were taken. There were no severe storms. The Columbia and Snake rivers began to rise about the 7th of the month, and they continued rising with scarcely any interruptions until the end of the month, but the flood stage was not reached at any of the gaging stations on these rivers, although at Vancouver, Wash., it came within one-tenth of a foot of the flood stage. Backwater from the Columbia caused the Willamette River at Portland to reach a stage of 16.3 feet at the end of the month, which is 1.3 feet above the flood stage.

Estimates regarding the flow of irrigation water in Montana, while varying somewhat, are generally to the effect that a normal supply will be obtained during the summer months.

TEMPERATURE.

The mean temperature, as determined from the records of 222 stations, was 51.2°, and it was above the normal in nearly all sections, especially in the eastern portion of the district where, in Montana, Idaho, and Wyoming, this was the warmest April on record at most stations. The greatest departures from seasonal temperatures were in the extreme southwest portion and over the eastern half of the district, where the mean temperatures were 4° to 6° above the normal, and in the lower levels in portions of the central Snake River drainage basin they even reached 8° above the average. The mean temperatures in the lower Columbia River, in the Puget Sound, and the coast drainage areas more nearly approximated the normal, those in the 2 last-named sections generally ranging either slightly above or slightly below the average.

The warmest sections were in the bottom lands of the Snake River along the central portion of its course, and along the Columbia River both northward and southwestward from the mouth of the Snake River, where mean temperatures of about 59° occurred. The coolest sections were, as usual, along the coast, and in the higher elevations of the interior, especially in the Blue Mountains and in the main range of the Rockies.

Low minimum temperatures prevailed quite generally east of the Cascade Mountains on the 3d and 4th, and again on the last few days of the month, but the period of coldest weather with frosty conditions over the whole district was from the 13th to the 15th, inclusive, and it was generally on one of the included dates that the minimum temperatures for the month were recorded at most of the stations. The warmest weather obtained from the 22d, approximately, to the 27th, the period being, as usual, longer in the eastern sections than in the coast counties.

The highest mean temperature was 59.8° at Blalock, Oreg., in the Columbia River Basin at an elevation of 237 feet, and also at Guffey, Idaho, on the watershed of the middle portion of the Snake River at an elevation of 2,381 feet. The lowest mean temperature was 41.0° at Range, Oreg., on the John Day watershed at 3,500 feet elevation. The highest recorded temperature was 100° at Guffey, Idaho, on the 25th, and the lowest was 4° at Alta, Wyo., in the upper Snake drainage basin, on the 4th.

PRECIPITATION.

The average precipitation, as determined from the records of 335 stations, was 1.76 inch, which is below the normal. The precipitation was generally above the average in southwestern Washington, in the middle and lower valleys of the Snake River, and in portions of the valley of the upper Columbia River, the departures being generally slightly less than half an inch, although Lakeview, Idaho, reported 1.39 inch above the normal, and East Sound, Wash., 1.03 inch above. The greatest deficiencies occurred west of the Cascade Mountains, and generally at those stations having the greatest average monthly rainfall. Over the eastern portion of the district there were 4 distinct rainy periods as follows: 1st to 3d, 6th to 14th, the 20th or 21st, and 27th to 30th; while in Oregon and Washington the first 2 periods noted were merged into 1, making 3 as follows: 1st to 13th, 19th and 20th, 25th to 30th. By far the greater portion of the monthly amounts fell during the first half of the month, the 2d and 7th being days on which unusually heavy rainfalls were recorded.

The comparatively light April snowfall occurred mostly during the first half of the month, and it generally melted quite rapidly, so that at the close of the month the greater portion of the snow that remained on the ground at the higher levels, and in the ravines, gulches, and canyons at moderate elevations, was principally the accumulation of the preceding months. It is generally well packed, and in the northern Cascade Mountains in Washington, and in the Kootenai Mountains in Montana, the depth is reported to be slightly more than the average for this season of the year.

The heaviest precipitation occurred west of the Cascade Mountains, where 1 to 7 inches fell. Over the remainder of the district, the rainfall was generally less than 4 inches, the greatest amounts falling at moderate elevations.

The greatest monthly precipitation was 7.83 inches at Trask, a station in the coast drainage area in Oregon, and no rainfall occurred at Ephrata, Wash., in the valley of the central Columbia, at an elevation of 1,265 feet, and also at Omak, Wash., on the Okanogan watershed. The greatest 24-hour fall was 2.00 inches on the 2d at Glenora, Oreg., in the coast drainage area, elevation 575 feet. Other heavy 24-hour falls of over an inch were 1.88 inch at Forks, Wash., on the 7th; 1.86 inch at Rock Creek, Oreg., on the 2d; 1.72 inch at Aberdeen, Wash., on the 7th; 1.65 inch at Lone Tree, Wash., on the 7th; 1.54 inch at Trask, Ore., on the 7th; and 1.40 inch at Burke, Idaho, on the 2d.

THE RIVERS.

The Columbia River.—There were no damaging floods during April, but temperatures far above the normal in Washington, Idaho, and Oregon caused the snow in the mountains to melt rapidly, and the Columbia and Snake rivers began to rise from about the 7th and were still rising on the 30th, the Columbia having reached such a stage that on that date its backwater in the Willamette brought the water at Portland to 1.3 feet above the flood stage. With the exception of the portage at The Dalles, the Columbia was navigable from its mouth as far up as Priest Rapids, Wash. That the river was unusually high is evidenced by the fact that at Vancouver with 7 years' record, at Umatilla with 17 years' record, and at Newport and Bonners Ferry with 6 years' record, the mean stage recorded for the month has never been exceeded. As compared with past years' record the average stage ranged from 2.6 feet above the normal at Vancouver, Wash., to 4.6 feet above at Umatilla, Oreg., and

7.6 feet above at Wenatchee, Wash. The mean stage was 0.5 foot lower than in March at Vancouver, 2.4 feet higher at Umatilla, and 8.1 feet higher at Wenatchee. At Vancouver the river rose from 9.5 feet on the 7th to 16.9 feet on the 30th, at Umatilla from 10.4 feet on the 7th to 18.1 feet on the 30th, and at Wenatchee from 13.0 feet on the 12th to 27.3 feet on the 30th. At the end of the month the annual rise of the Columbia is well under way. While the water is at a stage where much damage might have been done, warnings have been issued ever since the rapid rise began with the result that, so far, no losses have been reported and all parties interested are being notified of probable future stages by means of telephone, river bulletins, and the river forecasts that are being published in the daily papers.

The Snake River.—The mean of the daily stages, at the various stations, for the month, was about the same as for March, but from 3.0 to 5.0 feet above the normal for April. The water was at its lowest on the 6th and at its highest on the 30th. At Lewiston, Idaho, it rose from 9.3 feet on the 6th to 15.6 feet on the 27th. The Snake River was navigable to freight and passenger boats as far up as Asotin, Idaho.

The Willamette River.—The mean stage ranged from 0.4 foot below the normal at Eugene to 2.0 feet below at Albany and Salem, but at Portland, where the stages were determined by the height of the Columbia, it was 2.8 feet higher than usual for this period. The stage of the Willamette averaged generally about 3.0 feet lower than for March of this year. Except at Portland, where they were about the same as at Vancouver, the daily stages at the reporting stations varied little from the mean stage for the month which was 5.0 feet at Eugene and about 4.0 feet at Albany and Salem. The only rains in the valley that were sufficiently heavy to affect the run-off occurred from the 7th to the 12th.

MISCELLANEOUS PHENOMENA.

The prevailing winds were from the southwest. There was an excess of sunshine, except in western Washington where the amount fell slightly below the normal. The percentage of possible sunshine was 63 at Spokane, 39 at Seattle, and 55 at Portland. Killing frosts were general on the 14th and 28th; vegetation, however, was in excellent condition at the close of the month. Thunderstorms accompanied by hail were reported at many stations on the 2d and 10th. Several forest fires occurred in Washington during the latter part of the month. There were no very high winds reported.

A light earthquake shock was noted at Anaconda, Mont., on the 19th, about 1:30 a. m.

SNOWFALL CONDITIONS AND THE PROSPECTIVE WATER SUPPLY; UPPER COLUMBIA RIVER.

Bitterroot Basin.—The flow of water during April was greater than normal; it had begun to decrease at the end of the month. The stock of snow in the higher mountains is reported materially depleted and the prospect for a normal water flow later in the season is quite unfavorable.

Flathead Basin.—Stream flow below normal during April and decreasing at the close of the month. The indications are that the later run-off will be below normal, as the snow in the high mountains has been reduced by the warm weather to such an extent as to probably lessen materially the late flow of water.

Missoula Basin.—Reports are unfavorable, except in the vicinity of Elliston In general the April flow was above normal and the snow supply was depleted by the warm weather.

Deer Lodge.—The stock of snow has been materially reduced and, unless there is a great deal of snow and rain in May and June, all the streams will be below normal.

Deborgia.—There will not be the normal flow of water this season unless supplemented by rain. Snow going very fast and the quantity much less than in former years.

Elliston.—Stream flow about normal, decreasing at end of month on account of the cold weather. The stock of snow has been reduced somewhat, but there is more left on the mountains than at this time last year. There will be above the normal water flow the remainder of the season, because of the greater amount of snow, due to there being no rains this spring to start the snow and the springs.

Clarke Basin.—Conditions are very favorable for normal waterflow. The amount of snow on the Divide north of the Clarke is reported to be much above normal.

Nixon.—The stock of snow has not been depleted by the warm weather. Owing to the solid condition of the snow and the amount in the higher ranges the prospect for a good supply of water is excellent.

Thompson.—The stock of snow in the high ranges has not been depleted and there seems to be an unusual amount in these regions. The flow of water should therefore be normal for the rest of the season.

IRRIGATION PROJECT IN EAGLE AND PINE VALLEYS, OREGON.

Mr. E. M. Blake, general manager of the Eastern Oregon Irrigation Company, furnishes the following information regarding the scope of the work to be undertaken by his company in Baker County, Oreg., during the coming summer. This project has been approved by the State engineer, and it is being financed by people living in Chicago, Cleveland, and Boise:

The irrigation project being undertaken by the Eastern Oregon Irrigation Company comprises about 22,000 acres of desert lands, which have been segregated under the terms of the Carey Act, in townships 8 and 9 south, ranges 45, 46, 47, and 48 east of the Willamette meridian. In addition to this Carey Act land about 7,500 acres of private lands, held under the terms of the Desert and Homestead Acts, come under the canal and will be watered by the company. Most of this land is side-hill land, especially adapted to the successful raising of fruit for which the two valleys are already noted. Some of the slopes are as high as 30°, but the nature of the soil is such as to prevent erosion even on these steep slopes, and already there exist high-grade orchards in the valleys on slopes as steep as this. The soil is a basaltic and volcanic ash with just a slight admixture of clay, and when irrigated is as fertile as any soil to be found in the northwest.

The company proposes to construct a concrete diversion dam across Eagle Creek at a point in section 27, township 7 south, range 44 east of Willamette meridian. From this point the canal will follow the east side slopes of the Valley of Eagle Creek for a distance of about 9 miles before reaching the first of the lands to be irrigated, continuing on to cover approximately 30,000 acres of land in Eagle and Pine valleys. The details of construction cover several siphons, some fluming, and possibly one or two tunnels if distance can thereby be shortened, which will be determined as soon as the final surveys can be completed. In all there will probably be about 28 miles of main canal.

The drainage area above the point of diversion covers the watershed of the Granite Mountains and the high hills and mountains of the Sanger, Sparta, and Cornucopia mining districts, running up to the Divide between Eagle Creek and the Imnaha River. The exact area of this watershed has never been determined, but it is approximately 150 square miles. The average annual rainfall, so far as it can be stated from the available data, is about 16 inches, but this is mostly in the form of snow which does not melt until very late in the season. In fact, Eagle Creek keeps up its large flow until late in July of each year, storage being required for a period of only about 30 days. The percentage of run-off to rainfall is very high and Eagle Creek is known as one of the best and most constant streams in the State. The State engineer is at the present time making a water survey of all lands watered from Eagle Creek by arrangement with this company. This will be the first step in adjudicating the water rights on Eagle Creek in order that the company may determine accurately how much storage must be provided. Storage sites exist above the points of diversion which will be surveyed this spring, probably in conjunction with the surveying party of the State engineer.

COOPERATIVE INVESTIGATIONS OF WATER SUPPLY AND ITS RELATIONS TO THE DEVELOPMENT OF CENTRAL OREGON.

By J. C. STEVENS, District Engineer, U. S. Geological Survey.

Central Oregon has long held the distinction of being the largest area in the United States without railroad transportation. The present indications are that this distinction will not attach to it much longer.

The latent resources of this large area are fast attracting the attention of homeseekers and those desiring to invest in the development of these resources. Perhaps the most important development will be along agricultural lines. The territory is an arid one, and irrigation is necessary. While there is a considerable area that can be utilized for profitable development under dry farming processes, the crops resulting from irrigated agriculture will far exceed those from the dry farms.

The water supply of this territory is distributed with no degree of uniformity. There is a comparatively small area that can be irrigated by individual effort. On the other hand, there are large areas that can be irrigated as community enterprises. Under the provisions of the Carey Act large areas are already in a state of development by corporations who have contracted

with the State for this work. These, of course, cover Government or State lands. In other sections there are favorable opportunities for irrigation of lands already in private ownership. Such enterprises will require an investment of comparatively large amounts of capital. Heretofore such investments have not been profitable because of the lack of railroad transportation. There was no incentive to invest in the irrigation of lands, no matter how productive those lands might be, unless means were provided whereby the crops raised could be transported to market. The present prospects, however, for railroad extension into this territory places these projects in an entirely new light, and the development that is sure to follow the construction of railroads will far exceed our fondest hopes.

In all cases the one feature that determines the feasibility of these projects is that of water supply. The physical difficulties involved in the construction of dams, canals, and other irrigation works can be easily overcome, but the determination of water supply involves the element of time to such an extent that the problems connected therewith are not so readily solved.

The water to be utilized on the land is to be drawn from the streams. In nearly every case the entire yield of the drainage area must be utilized in order to furnish a sufficient amount for the lands that lie favorably for irrigation from them. This requires an extensive development of storage reservoirs. In nearly every case the amount of land that can be reclaimed is dependent solely upon the amount of water that can thus be rendered available for this purpose. The necessity, therefore, of securing reliable water supply data can not be too strongly urged. The determination of this important feature involves careful measurement of all the streams in the territory and a determination of the actual amount of water flowing each day in a year. The relation which stream flow bears to the rain and snow fall makes it necessary to study exhaustively the climatic conditions that obtain here. In this country the inhabitants are so scattering that it is almost impossible to secure local observers of rainfall, temperature, or of river gage heights at the points desired. In the determination of rain and snow fall, observations should be made at the higher altitudes. In these localities no inhabitants are found. The selection of rainfall stations, therefore, has been governed by the facilities for securing observations rather than by physical requirements.

In 1903 the United States Reclamation Service instituted an investigation of the water supply for certain projects that were then under consideration. It was found that the knowledge required to determine the feasibility of these projects was entirely inadequate, and that nothing definite could be done toward construction work until more information on the available water supply could be secured. Funds, however, were not available for a continued study of the streams necessary, and only a few of the more important stations were maintained.

In 1908 a systematic study of the water supply of central Oregon was undertaken by the United States Geological Survey in cooperation with the United States Reclamation Service, the United States Weather Bureau, and the State of Oregon. An engineer was put into the field to install rain and snow fall stations and gages at desired points on the streams of the territory. The determination of stream discharge requires frequent visits to these stations. At every visit measurements of discharge are made by means of a current meter. When these measurements or gagings cover a sufficient range in the stage of the streams, rating tables for each station can be prepared that will indicate the discharge in cubic feet per second for every stage of the river as indicated by the gage. Since gage readings are secured every day by local parties, it is thus possible to determine the discharge every day. The results of these investigations appear in the annual publications of the United States Geological Survey. Those for 1903 will be found in Water Supply Paper No. 100; those for 1904 in Nos. 133, 134, and 135; those for 1905 in Nos. 176, 177, and 178; those for 1906 in Nos. 212, 213, and 214; and those for 1907–8 in Nos. 250, 251, and 252. Of the last 3 papers, only No. 252 has as yet appeared in print.

The records obtained at the rainfall stations are published in the periodic reports of the United States Weather Bureau. Since July, 1909, these will be found in the MONTHLY WEATHER REVIEW and in the separates of the 12 districts into which the United States has been divided for this work.

In addition to these rainfall and stream flow stations, a limited amount of data on the evaporation from water surfaces was secured. Evaporation pans were installed in Harney Lake, Christmas Lake, and in Klamath River. While these data are meager, incomplete, and widely scattered, they nevertheless furnish some very necessary information when investigating the feasibility of storage projects.

The funds available for these investigations of water supply have not been commensurate with the necessity for the data, and on this account it has been necessary to spread the limited funds over a wide expanse of territory. Were it not for the cooperative agreements between the organizations above mentioned, investigations would not have been possible. The United States Geological Survey, through its engineers, secure data in the field, and analyze and publish them. The United States Reclamation Service pays one-half the cost of field examinations for the investigation of stream flow. The United States Weather Bureau has equipped with meteorological instruments, and furnished and paid observers for precipitation stations, and has compiled, analyzed, and published rainfall and snowfall data. The State of Oregon, through its State Engineer, is cooperating with the United States Geological Survey in securing stream-flow data in the State. There is available each year by legislative appropriation $2,500 for this cooperation. This money is expended under the direction of the United States Geological Survey, a portion thereof being used for the investigations in central Oregon.

In addition to the Government bureaus engaged in this cooperative work, the support of a number of irrigation and power companies in the territory has been enlisted. In this manner gage observations at many of the stations have been secured. At other points rainfall and snowfall data are being furnished voluntarily. No better plan of securing scientific data of this nature can be devised than that of hearty cooperation between all parties interested. In this work the State is probably the chief beneficiary. The Government's interest lies in the fact that the development of these nonproducing areas add homes to our civilization.

IRRIGATION IN THE WILLAMETTE VALLEY.

By JOHN H. LEWIS, State Engineer.

For many years grain growing has been the leading industry of the Willamette Valley, all of which is in private ownership. The average farm is probably 640 acres in extent, the tendency being to increase, rather than decrease, such area, because of the diminished yield to constant cropping. Diversified farming has been urged of late as a remedy, but this is possible only on selected lands which are retentive of moisture, or those which receive moisture through subirrigation. It is not contended that irrigation is necessary for all crops, for deep-rooted plants such as orchards are not affected by the long, dry summer. But for truck garden, alfalfa, clover, small fruits, and vegetables, irrigation in reasonable quantities is absolutely necessary for the highest yield.

Dairying is destined to become the leading industry of the valley, because of the mild, open winters. The most serious obstacle, however, is the long, dry summer, when it is necessary to carry the herd on dry feed, the same as during the winter months in the East. This condition, however, can easily be remedied through the artificial application of moisture. It has

been conclusively proven that 3 full crops of clover, together with fall pasture, can be produced with irrigation, where only one crop, with pasture, is available under present conditions.

Also,4 crops of alfalfa, with pasture, can likewise be produced. It is reported that the milk condensery at Hillsboro was compelled to close down because of the great falling off in the milk supply during the past summer. This is a serious matter and calls for investigation and remedy, otherwise the growth of one of our leading industries will be seriously retarded.

Less than 7 per cent of the total precipitation in the Willamette Valley falls during the summer months. During this same period in an irrigated country the equivalent of the entire annual precipitation is applied to the growing crops. It may be surprising to know that the summer precipitation at Denver, Colo., is 4.4 inches; at Cheyenne, Wyo., 5 inches, and at Santa Fe, N. Mex., 6.2 inches, as compared with 2.6 inches at Eugene. The summer conditions are, therefore, more arid in the Willamette Valley than in these arid States. During the spring seed-germinating period, which is the most deficient period for the irrigator, nature supplies and distributes the moisture. At Milan, Italy, where irrigation has reached a high state of development and has been practised for many years, the summer precipitation is 10.2 inches, as compared with 2.6 inches at Eugene. It is believed that these comparisons conclusively demonstrate a deficiency of summer precipitation.

Drainage in some districts should go hand in hand with irrigation. The quick removal of excessive spring moisture would prevent water-logging of the ground and increase by several weeks the length of the growing season. In other districts the drainage through the porous gravelly subsoil is so perfect that the lands are considered of but little value under present conditions. These lands, when irrigated, will become the most valuable.

In no section of the arid West is the water supply more abundant or more accessible than in this valley. No long feed canals or high diversion dams are required to convey the streams onto the land. If reservoirs must be built in order to prevent conflict with the Oregon City power interests, great latitude in their location is possible, as water can be stored on one tributary and diverted from the regular flow of another.

Aside from the human problem, the determination of the physical data to properly outline a large project in this valley is of the greatest importance. Topographic maps, showing the relative elevations of the valley lands, are necessary in the making of even a preliminary plan, also stream discharge measurements extending over several years.

It is necessary to gather such data at public expense. A small appropriation for such work was made by the legislature in 1905, and already 400 square miles in the vicinity of Eugene have been surveyed and gaging stations established on some of the most important streams. To cover the entire valley, at this rate, will require about 20 years. Our neighboring States are more liberal in promoting their own welfare through the gathering of such data, and the United States, through its Geological Survey, will contribute dollar for dollar with each State in such work. This offer was made at the last 2 sessions of our legislature without avail. California, for the past 6 years, has appropriated annually $40,000, and the survey of the Sacramento Valley is about complete. A gigantic irrigation and drainage project has been outlined and some of the smaller units already are under construction. The State of Washington has recently advanced $20,000 for such preliminary surveys.

The great commercial development which would follow the placing of 10 to 20 families upon each square mile of valley lands, where but one or two now live, should justify the commercial interests of Portland and all valley towns in contributing the preliminary expense by private subscription. If a comprehensive plan for a large reclamation project is presented to the next legislature and its feasibility assured, the necessary money for surveys will doubtless be appropriated.

THE IDAGON IRRIGATION PROJECT.

By EDWARD L. WELLS, Section Director, Boise, Idaho.

The water supply for this project is to be obtained from Succor, Jordan, Cow, Jump, and Sage creeks. The combined available watershed of these various streams amounts to somewhat more than 300,000 acres, lying in Owyhee County, Idaho, and Malheur County, Oregon, ranging in altitude from 2,700 to 8,000 feet above sea level. The precipitation data available for this region are very meager. From such data as are available, engineers have estimated the precipitation as ranging from 12 to 40 inches annually. The watershed includes a considerable portion of the Owyhee Mountains, where the winter snowfall is heavy (fig. 2). This range of mountains is almost wholly devoid of timber, and from this cause, as well as by reason of its isolation from other ranges, is subject to high winds, hence the snow is piled into huge drifts on the leeward side of the ridges, remaining in these drifts till late in summer, and sometimes throughout the year. A large part of the precipitation occurs outside the irrigating season, rendering storage necessary. The water supply has its legal basis on filings as follows:

Succor Creek	500 second-feet.
Jordan Creek	200 second-feet.
Cow Creek	100 second-feet.
Jump Creek	60 second-feet.
Sage Creek	20 second-feet.

The work already done consists of a diverting dam on Succor Creek (G, fig. 1) (fig. 3), at an elevation of 2,400 feet, from which

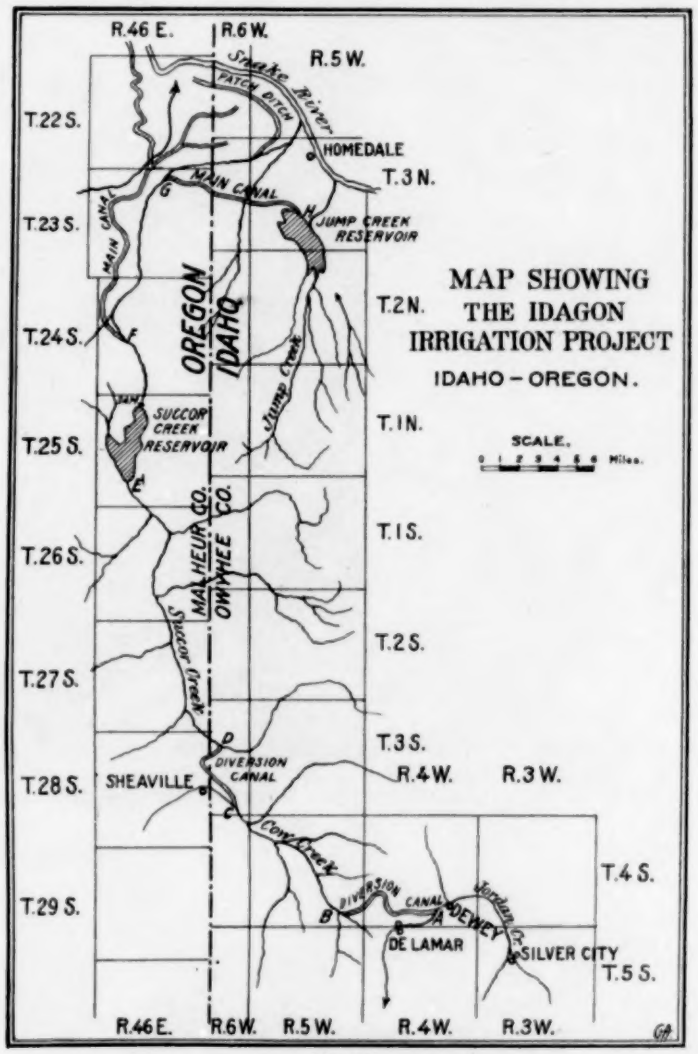

FIG. 1.

with the State for this work. These, of course, cover Government or State lands. In other sections there are favorable opportunities for irrigation of lands already in private ownership. Such enterprises will require an investment of comparatively large amounts of capital. Heretofore such investments have not been profitable because of the lack of railroad transportation. There was no incentive to invest in the irrigation of lands, no matter how productive those lands might be, unless means were provided whereby the crops raised could be transported to market. The present prospects, however, for railroad extension into this territory places these projects in an entirely new light, and the development that is sure to follow the construction of railroads will far exceed our fondest hopes.

In all cases the one feature that determines the feasibility of these projects is that of water supply. The physical difficulties involved in the construction of dams, canals, and other irrigation works can be easily overcome, but the determination of water supply involves the element of time to such an extent that the problems connected therewith are not so readily solved.

The water to be utilized on the land is to be drawn from the streams. In nearly every case the entire yield of the drainage area must be utilized in order to furnish a sufficient amount for the lands that lie favorably for irrigation from them. This requires an extensive development of storage reservoirs. In nearly every case the amount of land that can be reclaimed is dependent solely upon the amount of water that can thus be rendered available for this purpose. The necessity, therefore, of securing reliable water supply data can not be too strongly urged. The determination of this important feature involves careful measurement of all the streams in the territory and a determination of the actual amount of water flowing each day in a year. The relation which stream flow bears to the rain and snow fall makes it necessary to study exhaustively the climatic conditions that obtain here. In this country the inhabitants are so scattering that it is almost impossible to secure local observers of rainfall, temperature, or of river gage heights at the points desired. In the determination of rain and snow fall, observations should be made at the higher altitudes. In these localities no inhabitants are found. The selection of rainfall stations, therefore, has been governed by the facilities for securing observations rather than by physical requirements.

In 1903 the United States Reclamation Service instituted an investigation of the water supply for certain projects that were then under consideration. It was found that the knowledge required to determine the feasibility of these projects was entirely inadequate, and that nothing definite could be done toward construction work until more information on the available water supply could be secured. Funds, however, were not available for a continued study of the streams necessary, and only a few of the more important stations were maintained.

In 1908 a systematic study of the water supply of central Oregon was undertaken by the United States Geological Survey in cooperation with the United States Reclamation Service, the United States Weather Bureau, and the State of Oregon. An engineer was put into the field to install rain and snow fall stations and gages at desired points on the streams of the territory. The determination of stream discharge requires frequent visits to these stations. At every visit measurements of discharge are made by means of a current meter. When these measurements or gagings cover a sufficient range in the stage of the streams, rating tables for each station can be prepared that will indicate the discharge in cubic feet per second for every stage of the river as indicated by the gage. Since gage readings are secured every day by local parties, it is thus possible to determine the discharge every day. The results of these investigations appear in the annual publications of the United States Geological Survey. Those for 1903 will be found in Water Supply Paper No. 100; those for 1904 in Nos. 133, 134, and 135; those for 1905 in Nos. 176, 177, and 178; those for 1906 in Nos. 212, 213, and 214; and those for 1907–8 in Nos. 250, 251, and 252. Of the last 3 papers, only No. 252 has as yet appeared in print.

The records obtained at the rainfall stations are published in the periodic reports of the United States Weather Bureau. Since July, 1909, these will be found in the MONTHLY WEATHER REVIEW and in the separates of the 12 districts into which the United States has been divided for this work.

In addition to these rainfall and stream flow stations, a limited amount of data on the evaporation from water surfaces was secured. Evaporation pans were installed in Harney Lake, Christmas Lake, and in Klamath River. While these data are meager, incomplete, and widely scattered, they nevertheless furnish some very necessary information when investigating the feasibility of storage projects.

The funds available for these investigations of water supply have not been commensurate with the necessity for the data, and on this account it has been necessary to spread the limited funds over a wide expanse of territory. Were it not for the cooperative agreements between the organizations above mentioned, investigations would not have been possible. The United States Geological Survey, through its engineers, secure data in the field, and analyze and publish them. The United States Reclamation Service pays one-half the cost of field examinations for the investigation of stream flow. The United States Weather Bureau has equipped with meteorological instruments, and furnished and paid observers for precipitation stations, and has compiled, analyzed, and published rainfall and snowfall data. The State of Oregon, through its State Engineer, is cooperating with the United States Geological Survey in securing stream-flow data in the State. There is available each year by legislative appropriation $2,500 for this cooperation. This money is expended under the direction of the United States Geological Survey, a portion thereof being used for the investigations in central Oregon.

In addition to the Government bureaus engaged in this cooperative work, the support of a number of irrigation and power companies in the territory has been enlisted. In this manner gage observations at many of the stations have been secured. At other points rainfall and snowfall data are being furnished voluntarily. No better plan of securing scientific data of this nature can be devised than that of hearty cooperation between all parties interested. In this work the State is probably the chief beneficiary. The Government's interest lies in the fact that the development of these nonproducing areas add homes to our civilization.

IRRIGATION IN THE WILLAMETTE VALLEY.

By JOHN H. LEWIS, State Engineer.

For many years grain growing has been the leading industry of the Willamette Valley, all of which is in private ownership. The average farm is probably 640 acres in extent, the tendency being to increase, rather than decrease, such area, because of the diminished yield to constant cropping. Diversified farming has been urged of late as a remedy, but this is possible only on selected lands which are retentive of moisture, or those which receive moisture through subirrigation. It is not contended that irrigation is necessary for all crops, for deep-rooted plants such as orchards are not affected by the long, dry summer. But for truck garden, alfalfa, clover, small fruits, and vegetables, irrigation in reasonable quantities is absolutely necessary for the highest yield.

Dairying is destined to become the leading industry of the valley, because of the mild, open winters. The most serious obstacle, however, is the long, dry summer, when it is necessary to carry the herd on dry feed, the same as during the winter months in the East. This condition, however, can easily be remedied through the artificial application of moisture. It has

been conclusively proven that 3 full crops of clover, together with fall pasture, can be produced with irrigation, where only one crop, with pasture, is available under present conditions.

Also,4 crops of alfalfa, with pasture, can likewise be produced. It is reported that the milk condensery at Hillsboro was compelled to close down because of the great falling off in the milk supply during the past summer. This is a serious matter and calls for investigation and remedy, otherwise the growth of one of our leading industries will be seriously retarded.

Less than 7 per cent of the total precipitation in the Willamette Valley falls during the summer months. During this same period in an irrigated country the equivalent of the entire annual precipitation is applied to the growing crops. It may be surprising to know that the summer precipitation at Denver, Colo., is 4.4 inches; at Cheyenne, Wyo., 5 inches, and at Santa Fe, N. Mex., 6.2 inches, as compared with 2.6 inches at Eugene. The summer conditions are, therefore, more arid in the Willamette Valley than in these arid States. During the spring seed-germinating period, which is the most deficient period for the irrigator, nature supplies and distributes the moisture. At Milan, Italy, where irrigation has reached a high state of development and has been practised for many years, the summer precipitation is 10.2 inches, as compared with 2.6 inches at Eugene. It is believed that these comparisons conclusively demonstrate a deficiency of summer precipitation.

Drainage in some districts should go hand in hand with irrigation. The quick removal of excessive spring moisture would prevent water-logging of the ground and increase by several weeks the length of the growing season. In other districts the drainage through the porous gravelly subsoil is so perfect that the lands are considered of but little value under present conditions. These lands, when irrigated, will become the most valuable.

In no section of the arid West is the water supply more abundant or more accessible than in this valley. No long feed canals or high diversion dams are required to convey the streams onto the land. If reservoirs must be built in order to prevent conflict with the Oregon City power interests, great latitude in their location is possible, as water can be stored on one tributary and diverted from the regular flow of another.

Aside from the human problem, the determination of the physical data to properly outline a large project in this valley is of the greatest importance. Topographic maps, showing the relative elevations of the valley lands, are necessary in the making of even a preliminary plan, also stream discharge measurements extending over several years.

It is necessary to gather such data at public expense. A small appropriation for such work was made by the legislature in 1905, and already 400 square miles in the vicinity of Eugene have been surveyed and gaging stations established on some of the most important streams. To cover the entire valley, at this rate, will require about 20 years. Our neighboring States are more liberal in promoting their own welfare through the gathering of such data, and the United States, through its Geological Survey, will contribute dollar for dollar with each State in such work. This offer was made at the last 2 sessions of our legislature without avail. California, for the past 6 years, has appropriated annually $40,000, and the survey of the Sacramento Valley is about complete. A gigantic irrigation and drainage project has been outlined and some of the smaller units already are under construction. The State of Washington has recently advanced $20,000 for such preliminary surveys.

The great commercial development which would follow the placing of 10 to 20 families upon each square mile of valley lands, where but one or two now live, should justify the commercial interests of Portland and all valley towns in contributing the preliminary expense by private subscription. If a comprehensive plan for a large reclamation project is presented to the next legislature and its feasibility assured, the necessary money for surveys will doubtless be appropriated.

THE IDAGON IRRIGATION PROJECT.

By EDWARD L. WELLS, Section Director, Boise, Idaho.

The water supply for this project is to be obtained from Succor, Jordan, Cow, Jump, and Sage creeks. The combined available watershed of these various streams amounts to somewhat more than 300,000 acres, lying in Owyhee County, Idaho, and Malheur County, Oregon, ranging in altitude from 2,700 to 8,000 feet above sea level. The precipitation data available for this region are very meager. From such data as are available, engineers have estimated the precipitation as ranging from 12 to 40 inches annually. The watershed includes a considerable portion of the Owyhee Mountains, where the winter snowfall is heavy (fig. 2). This range of mountains is almost wholly devoid of timber, and from this cause, as well as by reason of its isolation from other ranges, is subject to high winds, hence the snow is piled into huge drifts on the leeward side of the ridges, remaining in these drifts till late in summer, and sometimes throughout the year. A large part of the precipitation occurs outside the irrigating season, rendering storage necessary. The water supply has its legal basis on filings as follows:

Succor Creek	500 second-feet.
Jordan Creek	200 second-feet.
Cow Creek	100 second-feet.
Jump Creek	60 second-feet.
Sage Creek	20 second-feet.

The work already done consists of a diverting dam on Succor Creek (G, fig. 1) (fig. 3), at an elevation of 2,400 feet, from which

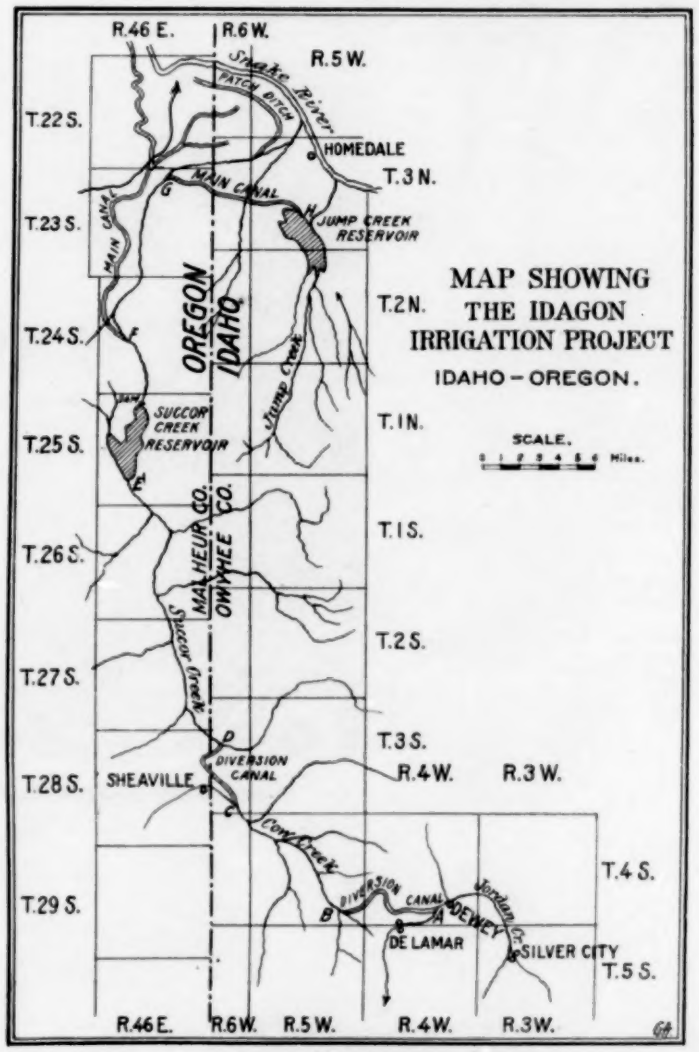

FIG. 1.

a canal 12 feet wide on the bottom is extended to Jump Creek (H, fig. 1), where the base of a dam has been constructed. This dam, when completed, will be used for the purpose of storing flood water. From a point on Jump Creek, some 2½ miles above, a canal 20 feet wide is constructed in a northerly direction, along the east side of Jump Creek, and from the dam 2 canals are constructed in a northerly direction to a point about 1 mile from Snake River. In all, about 20 miles of canals have been constructed. Roads have been built to every part of the project.

The work for which plans have been made is as follows: Beginning at a point between Dewey and De Lamar (A, fig. 2) a diverting canal will be constructed which will carry the water of Jordan Creek across the divide to the headwaters of Cow Creek (B, fig. 1). Thence the water will be conveyed by the natural channel of Cow Creek to a point near Sheaville, Oreg. (C, fig. 1), where it will again be diverted and conveyed by canal to Succor Creek (D, fig. 1), and thence carried by natural channel to the reservoir (E, fig. 1). The reservoir will be formed by the construction of a dam at a point (fig. 4) unusually well suited for this purpose. At this point bed rock forms the creek channel. On the right ledges of rock rise to a height of 700 feet, while on the left the height is 200 feet. At the base and up to a height of 75 feet the width of the opening is but 90 feet; at a height of 200 feet it is less than 300 feet. An abundance of material for the dam is at hand. At this point there is an elbow in the channel of the creek, which, with the angle of the ledges, forms a natural anchorage. The reservoir site is above the highest point on the tract to be irrigated. From the dam to the point of diversion, some 5 miles below (F, fig. 1), the water is carried first through a tunnel, and then in the natural channel of the stream.

It is planned to cover 25,000 acres by the gravity system outlined, and to develop sufficient water power to pump water from Snake River for 15,000 acres additional. The land is located along and near Snake River in the vicinity of Homedale, Idaho. The soil on the lower levels is sandy loam and on the higher levels is volcanic ash. The altitude at the river is about 2,200 feet and at the base of the foothills is about 2,700 feet. The surface lies in 3 low, but distinct benches. The slope is such as to give good air and water drainage. Such farming as has been done along Succor Creek indicates that the soil is fertile and that conditions are favorable for the growing of fruit as well as grain, hay, and vegetables. Two railroads have surveyed lines touching the tract.

Of the land to be irrigated, 10,000 acres have been withdrawn for reclamation under the Carey Act; 16,000 acres are State lands; the remainder is either private property or is being held under the homestead or desert laws.

FIG. 2.—Snow scene on Jordan Creek, Owyhee Mountains, Idagon Project.

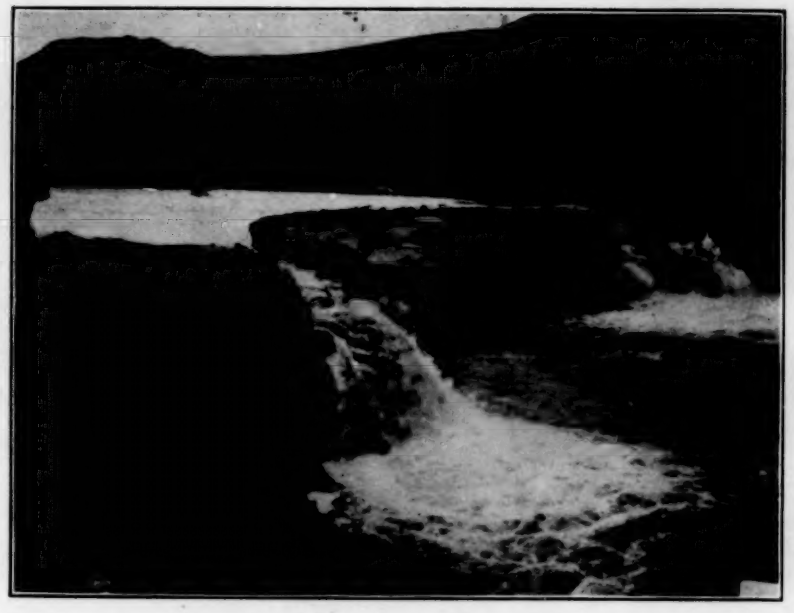

FIG. 3.—Diverting dam, Snow Creek, Idagon Project.

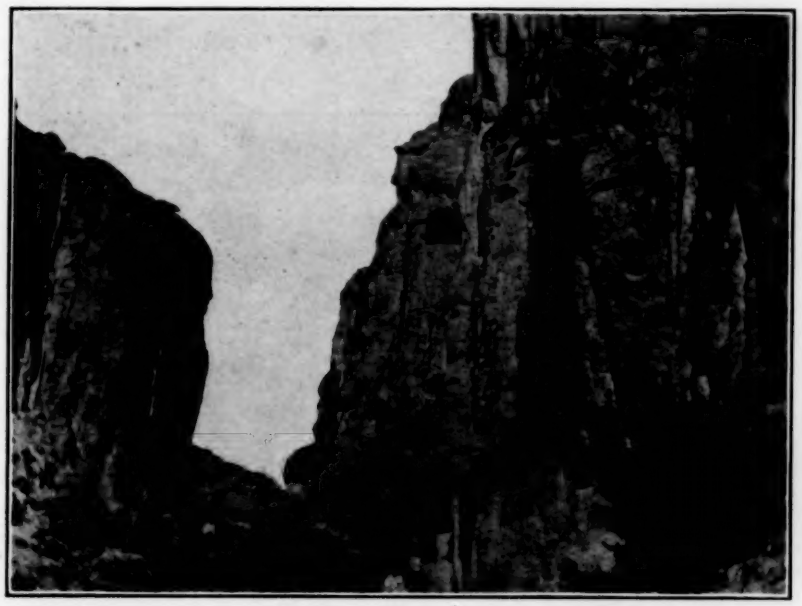

FIG. 4.—Reservoir dam site on Sunor Creek, Idagon Project.

TABLE 1.—*Climatological data for April, 1910. District No. 12, Columbia Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Montana.																				
Anaconda	Deer Lodge	5,300	9	47.4[a]		83[a]	25	22[a]	15	40[a]	0.35	− 0.35	0.15	T.	3	9	13	8		C. D. Demond.
Bison	Powell	7,240									0.83		0.50	6.0	4	21	6	3		C. H. Anderson.
Columbia Falls	Flathead	3,100	16																	Mrs. I. M. Kennedy.
Como‖**	Ravalli		2	53.8		92	25	26	15	48	0.74		0.22	0.0	10	11	12	7		Hiram Platt.
Darby	...do	3,825	1																	W. A. Kerlee.
Dayton	Flathead	2,800	6	47.8		85	24	22	6	47	1.50		0.50	0.0	5	22	0	8		Charles Frost.
East Anaconda§	Deer Lodge	5,500	5	48.6		84	25	23	3†	38	0.50		0.30	T.	2	9	13	8	w.	C. D. Demond.
Fortine	Lincoln	2,975	4	47.3		87	25	18	14	57	0.72		0.32	T.	11	9	12	9	w.	Mike Petery.
Hamilton	Ravalli	3,575	7	54.4		89	24	26	15	45	0.20		0.10	0.0	3	18	11	1	w.	J. B. Currie.
Hat Creek	Powell	6,000									1.07		0.30	4.5	8	9	15	6	w.	M. K. Landreth.
Kalispell	Flathead	2,965	11	47.8	+ 5.3	84	25	25	14	42	0.86	− 0.20	0.21	2.1	10	10	11	9	sw.	U. S. Weather Bureau.
Lost Creek	Deer Lodge	5,200									0.11		0.68	0.3	2	18	12	0	w.	Frank Henault.
McGinnis Meadows	Lincoln			47.8[l]		87[a]	25	16[l]	14	55[l]						[k]	[k]	[k]		H. L. Beebe.
Missoula	Missoula	3,225	32	51.2	+ 6.2	90	25	26	15	50	0.66	− 0.32	0.42		5				sw.	U. S. Weather Bureau.
Ophir	Powell	5,800									1.07			4.0	6	10	14	6	w.	E. S. Wilton.
Ovando	...do	4,207	10																	S. B. Muchmore.
Philipsburg	Granite	5,275	7	48.6[a]		89[a]	25	19[a]	15	54[a]	0.37		0.12	2.0	4	17[a]	8[a]	4[a]	sw.	G. T. Bramble.
Plains	Sanders	2,475	12	49.4	+ 4.4	87	25	23	14	44	0.10	− 0.43	0.10	0.0	1	17	1	12	sw.	M. H. Pierce.
Pleasant Valley	Flathead	3,500	3	46.0		83	25	20	14†	51	0.89		0.20	0.0	10	12	12	6	w.	A. D. Stillman.
Polson	...do	2,920	2								1.00		0.45	0.0	3					F. P. Brown.
St. Ignatius	Missoula	2,700	4	51.6		89	25	22	15	51	1.03		0.21	0.5	11	12	5	13	w.	U. S. Reclamation Service.
St. Regis	...do	2,650	2	48.8		93	25	20	15	60	1.35		0.38	0.0	8	7	16	7	ne.	R. D. Lee.
Saltese	...do	3,600	6								1.42		0.42	5.0	5	24	0	6	w.	E. K. Tarbox.
Snowshoe	Lincoln	4,500	4																	J. C. Riter.
Troy	...do	1,880	14	52.7	+ 6.7	93	25	22	7†	51	1.88	+ 0.65	0.67	T.	7	13	15	2	w.	W. E. Milnor.
Upper Lake McDonald	Flathead	3,200	2																	F. F. Liebig.
Wyoming.																				
Afton	Uinta	6,200	6	43.8	+ 4.8	78	26	14	4	49	1.11	− 0.57	0.50	2.0	6	19	4	7		A. V. Call.
Alta	...do		1	42.2		74	26†	4	4	42	1.49		0.42	3.0	7	16	3	11	sw.	Mrs. Lucy Brown.
Bedford	...do	5,900	10	43.0	+ 5.7	76	26	10	5	52	0.37	− 1.08	0.19	1.9	4	17	6	7	w.	C. G. Heiner.
Snake River	Yellowstone Park	7,000	4	37.1		71	25†	1	15	48	2.60		0.60	20.0	10	19	6	5	w.	U. S. Army.
Nevada.																				
San Jacinto	Elko			43.0		78	24	12	14	52	0.86		0.27	1.0	6	14	6	10	sw.	Moses Jones.
Utah.																				
Standrod	Boxelder		6	48.8		80	26	17	15	34	1.39		0.65	1.0	6	18	6	6		T. B. Jones.
Idaho.																				
Atlanta	Elmore	5,500	4																	H. Warder Lewis.
Albion	Cassia		8	49.9		85	24	14	15	52	1.46		0.70	T.	5	15	10	5	w.	G. A. Axline.
Almo	...do		2								0.79		0.42	T.	2	17	11	2	nw.	Wm. L. Eames.
American Falls	Oneida	4,341																		O. H. Barber.
Blackfoot	Bingham	4,503	15	50.3	+ 4.7	85	25†	16	15	51	0.67	− 0.09	0.15	0.0	6	14	14	2	sw.	E. A. Dowd.
Blackfoot Dam	...do		2	42.7		78	26	11	4	44	0.77		0.21	1.0	10	18	6	6	w.	N. W. Irsfield.
Blanche	Lincoln		2	54.8[c]		95[c]	25	23[c]	3	53[c]									e.	Mrs. Belle Hess.
Bock's Ranch	Elmore	3,500									1.10		0.46	0.0	6					William Bock.
Bogus Creek	Boise	4,200	2								2.83		0.83	0.0	8	12	14	4		F. P. Ingraham.
Boise	Ada	2,770	25	55.9	+ 5.8	91	25	29	15	39	1.10	− 0.08	0.59	T.	7	14	7	9	nw.	U. S. Weather Bureau.
Bonners Ferry	Bonner	1,850	4	48.6		88	25	22	14	49	1.60		0.42	0.0	10	9	16	5	sw.	W. H. Heideman.
Boulder Mine	Boise	4,800									2.01		0.70	0.0	8	18	7	5		Patrick Moriarty.
Buhl	Cassia	3,800	4			93	26				0.82		0.37	0.0	3	17	13	0	w.	H. J. Idema.
Burke	Shoshone	4,082	3	42.8		83	25	17	14	45	4.38		1.40	9.5	12	9	16	5	nw.	W. Alvin Hall.
Caldwell	Canyon	2,372	6	55.7		91	25	23	4	52	1.05		0.43	0.0	6	8	14	8	w.	Prof. Wm. J. Boone.
Camas	Fremont	4,815	2			85	24†				1.44		0.46		8	14	15	1	sw.	Mrs. Edna Faulkner.
Cambridge	Washington	2,651	13	53.0	+ 3.3	90	25	26	4†	52	1.73	+ 0.49	0.70	T.	7				w.	Chas. H. Shepherd.
Chesterfield	Bannock	5,424		47.7	+ 6.3	83	26	22	4	50	0.72	− 0.23	0.42	2.0	4	9	14	7	sw.	Chas. S. West.
Clawson	Fremont										0.89		0.30	1.0	7	17	6	7		E. J. Hopkins.
Cœur d'Alene	Kootenai	2,157																		Jos. T. Scott.
Cottonwood Creek	Boise	4,000									2.67		1.02	0.0	6					Frank Hedrick.
Crawford	...do	4,300	3	45.8[c]		82[c]	25	17[b]	4	51[c]	2.52		0.80		5				w.	Mrs. Gertrude Kerby.
Culdesac	Nez Perce	1,520	2	54.2		92	19†	29	15	55	2.68		0.92	0.0	5	15	3	12		R. R. Richmond.
Deary	Latah			49.4		90	25	22	14	49			0.88	5.0		14	9	7	w.	H. M. Call.
Dent	Nez Perce	1,350	5	58.0		97	25	31	30	45	2.22		0.65	0.0	8	11	13	6		Emil Schuessler.
Driggs	Fremont	6,097	3	42.8		76	26	12	15	44	0.92		0.28	2.0	6	14	5	11	sw.	Walter H. Durrant.
Edie	...do			45.1		78	25	20	3†	44	1.40		0.55	4.0	3	23	4	3	s.	Geo. B. Edie.
Edwardsburg	Idaho	4,500		42.6		78	25	10	4	54									nw.	W. A. Edwards.
Emmett	Canyon	2,350	4																	E. L. Marvin.
Forney	Lemhi			46.6	+ 5.7	85	27	14	3	54	0.40	− 0.78	0.15	3.0	6	9	7	14	sw.	M. B. Merritt.
Garden Valley	Boise	3,600		51.6[a]		92[a]	25	25[a]	4†	57[a]	2.12		0.54	0.0	8	15	9	6	w.	Mrs. Gertrude M. Ross.
Garnet	Elmore	2,575	11	59.4	+ 4.7	97	25	28	4	51	0.79	+ 0.10	0.73	0.0	2	21	3	6	e.	Asa A. Kenison.
Gilbert	Nez Perce	3,030																		J. B. Loomis.
Glenns Ferry	Elmore	2,569	2	57.2		97	25	20	15	57	0.94		0.48	0.0	6	22	5	3	nw.	I. E. Perkins.
Gooding	Lincoln	3,572		53.2		94	25	18	15	57	0.77		0.23	0.0	7	20	6	4	w.	John Krall, jr.
Grand Forks	Shoshone	3,000		42.6		88	25	19	15	59	4.47		1.32		12	15	9	6	e.	Henry Kottkey.
Grandview	Owyhee	2,381		55.4		93	24†	24	4	56	0.39		0.17	0.0	5	18	7	5	nw.	N. G. Massey.
Green Timber	Fremont																			Otto Stegelmeier.
Grimes Pass	Boise	5,200									2.21		0.45	0.0	7					Joseph M. Clarke.
Guffey	Owyhee	2,381	2	59.8		100	25	31	5†	51	0.57		0.21	0.0	5	22	8	0	w.	Fred Perry.
Hailey	Blaine	5,347	6	49.7		84	25	22	3	42	0.81		0.34	T.	6	18	6	6	sw.	U. S. Forest Service.
Hotspring	Owyhee	2,752	5	58.4		93	25	27	4†	50	1.30		0.60	0.0	4	17	10	3		J. M. Waterhouse.
Idaho City	Boise	4,000	10								1.62	+ 0.34	0.60	0.0	6					Mrs. Emma Hammer.
Idaho Falls	Bingham	4,742	16	49.9	+ 5.7	86	26	20	15	51	0.06	− 0.96	0.04	0.0	2	15	6	9	ne.	Dr. T. M. Bridges.
Indian Valley	Washington	2,999	2																	W. E. Henke.
Irwin	Bingham	6,500		47.0		82	25†	14	14	49	1.10		0.41	2.0	4	11	8	11	w.	Eva Johnston.
Kellogg	Shoshone	2,330	6	48.3		92	25	24	14†	55	2.80		0.74	1.0	9	14	1	15	sw.	W. McM. Huff.
Kirkham	Boise										2.60		1.30	0.0	4	10	10	10	e.	Mrs. Josie B. West.
Kooskia	Idaho	1,261	2	53.5		89	25	29	4	48	3.36		0.63	0.0	9	10	12	8	w.	U. S. Forest Service.
Lake	Fremont	6,700	21			76	27†	18	14	44	0 20	− 0.76	0.20	2.0	1				sw.	J. Sherwood.
Lakeview	Bonner	2,250	13	48.6	+ 2.8	80	18†	26	14	45	3.15	+ 1.39	1.30	0.0	10	9	5	16	sw.	E. D. Faust.
Landore	Washington	5,300	6	44.2		79	25	17	4	44	4.18		0.72	8.8	12	14	12	4		Mrs. Emma L. Brown.
Lewiston	Nez Perce	757	17	55.8	+ 2.9	92	25	34	15	42	1.36	+ 0.23	0.35	0.0	11	5	13	12	e.	U. S. Weather Bureau.
Little Camas	Elmore	5,000	2								1.43		0.47	T.	5	9	14	7	w.	Solon McCoy.
Long Gulch	...do	4,500									1.60		0.62	0.0	6	17	11	2		Mrs. Elizabeth A. Hjort
Loon Creek	Custer	6,000		42.4		80	25	13	4	53	1.37		0.30	0.5	13	15	11	4	sw.	Mrs. Emma Walter.
Lost River	Blaine	5,700		46.4	+ 4.0	85	26	19	13	46	0.06	− 0.46	0.06	0.0	2				sw.	Mrs. Mary L. Lemon.
Lowry	Owyhee		2																	W. D. Winter.
McCall	Boise	5,025	5	43.0		84	25	7	4	54	2.03		0.67		6	20	3	7	s.	U. S. Forest Service.
Mackay	Custer	5,897	3					19	2		0.45		0.11	0.0	7	13	0	17	nw.	Do.
Meadows	Washington	3 950	6	47.8		87	25	21	4†	55	2.92		0.68	1.5	10	13	10	7		Chas. A. Heckney.

TABLE 1.—*Climatological data for April, 1910. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Idaho—Cont'd.																				
Milner	Cassia	4,097	7	53.5[b]	.....	86[b]	25	18	15	43[b]	1.11	.....	0.47	0.0	5	13	13	4	w.	R. A. Hanson.
Moscow	Latah	2,748	18	51.2	.....	88	25	28	3†	36	1.77	.....	0.59	0.8	11	12	9	9	sw	University of Idaho.
Mountainhome	Elmore	3,150	5	54.2	.....	94	25	15	15	56	0.53	.....	0.27	0.0	3	13	8	9	nw.	Mrs. Ellen Manion.
Murtaugh	Cassia	.....	4	50.4[a]	.....	88[a]	25	17[a]	15	54[a]	1.07	.....	0.50	T.	3	22	4	4	w.	J. E. Steinour.
Nez Perce‡	Nez Perce	3,182	.....	48.0	.....	86	25	21	15	45	.....	.....	0.76	.....	.....	17	0	13	.....	P. Mitchell.
Oakley	Cassia	4,191	17	52.8	+ 5.6	90	25	20	15	45	0.15	− 0.75	0.16	T.	2	10	12	8	s.	John Adams.
O'Hara Bar	Idaho	1,400	.....	.....	.....	95[b]	24	26[b]	15	58[b]	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Forest Service.
Orofino	Nez Perce	1,027	5	54.2	.....	98	25	27	15	60	2.46	.....	0.50	0.0	14	12	14	4	.....	Geo. Alteneder.
Payette	Canyon	2,159	20	54.2	+ 2.3	90	24	25	4†	52	0.97	+ 0.17	0.30	T.	6	14	5	11	n.	E. F. Allen.
Pebble	Bannock	5,277	.....	46.1	.....	81	26	21	16	49	1.06	.....	0.46	1.5	6	16	11	3	sw.	Mrs. Fannie Say.
Pierson	Custer	7,000	2	.....	.....	.....	.....	.....	.....	.....	2.07	.....	0.62	10.0	4	21	0	9	.....	David P. Clarke.
Pine	Elmore	4,100	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. Jennie Potter.
Placerville	Boise	4,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	James McDevitt.
Pleasant Valley	Ada	3,000	3	54.0	.....	94	25	22	15	45	1.04	.....	0.40	0.0	7	18	5	7	so.	C. E. Friedrich.
Pocatello	Bannock	4,483	11	51.9	+ 5.1	84	26	25	15	37	1.54	− 0.48	0.71	0.7	6	15	9	6	so.	U. S. Weather Bureau.
Pocatello Nursery	....do	5,396	3	45.8	.....	81	25†	10	14	49	1.31	.....	0.53	0.8	5	23	0	7	sw.	Mrs. Anna M. Wrensted.
Poplar	Bingham	.....	2	47.0	.....	84	26	10	14	44	1.08	.....	0.22	1.0	7	16	6	8	sw.	Stanley Bybee.
Porthill	Bonner	1,665	22	49.6	+ 3.9	80	24	25	14	42	0.73	− 0.37	0.17	0.0	9	17	2	11	sw.	H. A. French.
Powers Ranch	Boise	4,300	.....	.....	.....	.....	.....	.....	.....	.....	1.72	.....	0.86	0.0	7	18	7	5	w.	Mrs. Mona B. Powers.
Pyle Creek	....do	3,100	.....	.....	.....	.....	.....	.....	.....	.....	2.21	.....	0.66	T.	6	14	9	7	ne.	Walter L. Cole.
Rattlesnake Creek	Elmore	4,000	.....	.....	.....	.....	.....	.....	.....	.....	1.84	.....	0.60	T.	8	11	10	9	sw.	Richard M. Green.
Ruby Creek	Boise	4,400	.....	.....	.....	.....	.....	.....	.....	.....	2.48	.....	0.98	0.0	9	10	14	6	w.	O. A. Hatter.
Rupert	Lincoln	4,204	4	51.7	.....	85	24†	19	15	48	0.59	.....	0.25	0.0	6	24	2	4	w.	Will Parry.
Salmon	Lemhi	4,040	5	51.0	.....	88	25	14	15	58	0.41	.....	0.11	0.2	6	15	12	3	w.	E. K. Abbott.
Salmon River Dam	Twin Falls	.....	2	52.7	.....	86	25	22	3	41	0.79	.....	0.34	T.	7	13	9	8	nw.	Arch M. Gilbert.
Sheep Hill	Boise	5,000	2	.....	.....	.....	.....	.....	.....	.....	1.39	.....	0.47	T.	8	.....	.....	.....	.....	Clifford M. Gardner.
Shoshone	Lincoln	3,968	2	52.1	.....	85	25	20	15	46	0.33	.....	0.14	0.0	4	14	15	1	w.	O. A. Truman.
Silver City	Owyhee	6,280	3	.....	.....	.....	.....	.....	.....	.....	1.90	.....	0.53	T.	7	20	7	3	s.	A. D. Bradfield.
Smith Prairie	Elmore	5,200	.....	.....	.....	.....	.....	.....	.....	.....	1.61	.....	0.34	1.0	8	.....	.....	.....	.....	Wm. W. Newell.
Soldier	Blaine	5,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. W. Leek.
Sugar	Fremont	.....	3	47.7	.....	83	25	14	15	54	0.62	.....	0.24	T.	8	14	10	6	sw.	Geo. F. Webb.
Sunnyside	Elmore	.....	.....	53.8	.....	92	25	23	15	49	0.91	.....	0.65	0.0	3	.....	.....	.....	nw.	E. A. Wilmot.
Tilden	Bingham	4,420	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. W. A. Edwards.
Tripod Mountain	Boise	4,300	.....	.....	.....	.....	.....	.....	.....	.....	1.62	.....	0.65	T.	6	16	7	7	.....	Mrs. Verna Paddock.
Twin Falls	Twin Falls	3,825	5	53.4	.....	91	25	22	15	53	0.73	.....	0.40	0.0	4	19	11	0	w.	J. A. Waters.
Vernon	Fremont	.....	13	47.4	+ 5.9	82	26	16	15	47	0.85	− 0.23	0.33	T.	7	15	12	3	sw.	A. M. Slatery.
Wallace	Shoshone	2,728	3	48.4	.....	91	25	24	14	51	3.67	.....	1.36	.....	13	.....	.....	.....	.....	U. S. Weather Bureau.
Wendell	Lincoln	3,400	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Chas. L. Dingler.
Washington.																				
Aberdeen	Chehalis	162	19	48.8	+ 0.4	76	22	33	14	36	5.28	− 1.41	1.72	0.0	14	3	24	3	w.	Carl S. Weatherwax.
Anacortes	Skagit	60	16	48.1	.....	71	23	30	14†	34	1.37	− 0.81	0.33	0.0	11	11	14	5	.....	Douglas Allmond.
Baker	....do	200	4	50.6	.....	93	23	32	18	51	4.49	.....	0.92	0.0	11	10	8	12	.....	Robt. M. White.
Bellingham	Whatcom	60	15	49.0	0.0	72	30	32	17	38	1.98	− 0.15	0.68	0.0	8	17[a]	4[a]	8[a]	.....	Sanford B. Mayhew.
Blaine	....do	53	13	46.6	+ 0.4	70	2[a]	30	17	31	2.64	− 0.01	0.66	0.0	13	11	10	9	w.	John W. Sheets.
Blewett	Chelan	2,200	.....	.....	.....	.....	.....	.....	.....	.....	0.74	.....	0.40	4.0	6	20[f]	6[f]	4[f]	.....	John Burmeister.
Bremerton	Kitsap	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.36	.....	0.50	0.0	12	.....	.....	.....	.....	U. S. Navy Yard.
Brewster	Okanogan	.....	.....	53.4	.....	88	24	32	15	39	0.18	.....	0.12	0.0	2	13	13	4	s.	Mrs. H. F. Bertram.
Bumping Lake	Yakima	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Reclamation Service.
Cashmere	Chelan	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.36	.....	0.25	6.5	2	12	14	4	nw.	Valley Power Co.
Cedar River	King	.....	3	.....	.....	.....	.....	.....	.....	.....	4.62	.....	0.78	0.0	16	7	4	19	.....	George Landsburg.
Centralia	Lewis	212	17	50.3	+ 0.9	91	23	30	6†	51	3.32	− 0.22	0.88	0.0	10	8	18	4	s.	I. S. Turner.
Cheney	Spokane	2,351	11	51.2	.....	86	25	19	8	40	0.88	− 0.17	0.29	0.0	5	14	13	3	sw.	Northern Pacific Ry.
Clealum	Kittitas	1,930	11	46.2	+ 1.9	85	25	25	15	49	1.18	− 0.22	0.69	6.0	6	17	9	4	sw.	J. A. Balmer.
Clearbrook	Whatcom	140	7	46.9	.....	85	23	27	27†	47	2.93	.....	1.60	0.0	6	11	3	16	s.	Geo. Gibbs.
Clearwater	Jefferson	135	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Ritchie.
Colfax	Whitman	2,300	21	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. H. James.
Colville	Stevens	1,635	10	51.7	+ 4.8	92	25	23	14	54	0.48	− 0.48	0.19	0.0	6	12	4	14	sw.	W. L. Sax.
Conconully	Okanogan	2,300	10	50.8	+ 4.6	85	25	27	3	39	0.67	− 0.15	0.46	0.0	3	17	0	13	s.	Wm. Baines.
Cowiche	Yakima	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Reclamation Service.
Crescent	Lincoln	2,250	10	50.0[a]	+ 3.9	88[a]	25	20	2	47[a]	0.77	− 0.19	0.42	0.0	2	21	2	7	sw.	Otto Wollweber.
Davenport	....do	2,450	1	50.3	.....	86	25	22	3	40	0.95	.....	0.35	0.0	4	17	10	3	sw.	W. H. Reed.
Dayton	Columbia	1,700	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. W. Hendron.
Detroit	Mason	30	2	49.7	.....	86	23	31	15†	46	2.92	.....	0.99	0.0	14	15	8	7	sw.	Walter O. Eckert.
Dixie	Walla Walla	5,000	1	.....	.....	.....	.....	.....	.....	.....	3.93	.....	1.02	4.0	14	10	7	13	sw.	T. Z. Andrews.
Duckabush	Jefferson	380	2	46.9[b]	.....	84[b]	27[b]	27[b]	29[b]	41[b]	3.33	.....	0.79	0.3	15	5[b]	7[b]	12[b]	sw.	E. J. Finch.
East Sound	San Juan	500	15	48.1	+ 0.7	71	23	31	5	30	2.89	+ 1.03	0.80	T.	10	17	8	5	nw.	Benj. E. Harrison.
Ellensburg	Kittitas	1,571	22	50.4	+ 2.6	92	25	25	15	53	0.37	− 0.21	0.21	0.0	3	17	9	4	nw.	R. Lee Barnes.
Ephrata	Grant	1,265	7	54.8[a]	.....	90[a]	25†	21	1†	57	0.00	.....	0.00	0.0	0	18[a]	4[a]	7[a]	s.	T. J. Cook.
Forks	Clallam	480	1	48.6[c]	.....	77[b]	22	30[c]	17†	38[c]	6.92	.....	1.88	T.	19	8[a]	12[a]	9[a]	s.	E. A. Markham.
Fort Simcoe	Yakima	1,427	16	52.9	+ 0.6	92	25	20	14	50	1.00	+ 0.60	0.50	0.0	3	18	9	3	.....	Frank C. Hill.
Goat Lake	Shohomish	2,900	1	.....	.....	.....	.....	.....	.....	.....	5.50	.....	1.64	19.5	16	.....	.....	.....	.....	C. M. Mackintosh.
Gold Creek	Yakima	2,600	1	.....	.....	.....	.....	.....	.....	.....	0.89	.....	0.36	3.5	3	8	15	7	w.	John W. Anderson.
Goldendale	Klickitat	1,600	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Klickitat Co. Abstract Co.
Granite Falls	Snohomish	397	7	.....	.....	.....	.....	.....	.....	.....	5.15	.....	0.80	0.0	16	6[a]	9[a]	14[a]	nw.	C. H. Cleaver.
Hatton	Adams	1,100	5	55.6	.....	95	25	26	14†	47	0.89	.....	0.47	0.0	5	12	7	11	sw.	Dr. A. V. Marion.
Huntsville	Columbia	1,400	2	.....	.....	.....	.....	.....	.....	.....	1.63	.....	0.38	0.0	8	18	3	9	.....	Dr. B. Hill.
Irene Mountain	Okanogan	3,015	1	.....	.....	.....	.....	.....	.....	.....	0.18	.....	0.09	0.0	4	6	11	13	sw.	Manda Shain.
Kennewick	Benton	367	15	57.9	+ 3.2	95	18†	27	15	53	0.23	− 0.03	0.10	0.0	5	.....	.....	.....	.....	L. W. Soth.
Kettle Falls	Stevens	1,265	1	52.8	.....	91	24	25	14	50	0.41	.....	0.19	0.0	4	11	14	5	.....	Harry H. Cole.
Kiona	Benton	430	5	57.5	.....	93	25	28	15	49	0.34	.....	0.23	0.0	3	17	8	5	sw.	Dr. F. S. Hedger.
Kosmos	Lewis	775	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. A. Ulsh.
La Center	Clarke	250	13	48.6	− 1.1	85	24	28	14	45	3.68	+ 0.34	1.00	0.0	9	8	14	8	sw.	Joseph Brothers.
La Crosse	Whitman	1,400	1	54.0	.....	92	25	29	14†	45	1.66	.....	0.35	0.0	10	18	6	6	se.	M. E. Schreck.
Lake Clealum	Kittitas	2,171	1	.....	.....	.....	.....	.....	.....	.....	1.56	.....	0.67	5.0	8	6	9	15	nw.	U. S. Reclamation Service
Lake Kachess	....do	2,235	2	43.0	.....	81	25	26	14	47	2.93	.....	1.20	20.0	10	12	11	7	e.	Do.
Lake Keechelus	....do	2,479	2	.....	.....	.....	.....	.....	.....	.....	5.42	.....	1.40	14.0	10	6	5	19	.....	Do.
Lakeside	Chelan	1,116	19	52.8	+ 2.3	86	25	34	14†	36	0.08	− 0.64	0.05	0.0	2	6	20	4	w.	W. H. Van Meter.
Laurel	Klickitat	1,900	.....	.....	.....	.....	.....	.....	.....	.....	2.46	.....	0.80	1.0	8	9	19	2	w.	Mrs. Minnie E. Strout.
Laurier	Ferry	.....	.....	52.5[e]	.....	92[e]	24	17[e]	2	55[e]	0.44	.....	0.14	0.0	5	5[e]	8[e]	12[e]	s.	Mrs. J. S. Myers.
Lester	King	1,614	6	49.4	.....	87	24	28	30	48	3.20	.....	0.95	12.0	10	7	5	18	w.	W. W. Clabaugh.
Lone Tree	Chehalis	9	1	.....	.....	.....	.....	38	1†	.....	5.77	.....	1.65	0.0	19	5	12	13	nw.	U. S. A. Engineer Corps.
Longmires Springs	Pierce	2,800	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Forest Service.
Lost Creek	Okanogan	3,125	1	.....	.....	.....	.....	.....	.....	.....	0.20	.....	0.12	0.0	2	13	12	5	w.	P. H. Leese.
Lyle	Klickitat	600	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Wm. Morginson.
McCumber's Ranch	Yakima	2,182	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. Mary McCumber.
Mottinger	Benton	307	10	59.7	+ 3.7	95	25	33	14	43	0.28	− 0.30	0.14	0.0	5	21	4	5	w.	G. H. Mottinger.
Mount Pleasant	Skamania	650	10	53.0	+ 2.0	87	23	32	14	38	4.42	+ 0.62	0.90	0.0	14	16	1	13	w.	F. M. Grout.

TABLE 1.—*Climatological data for April, 1910. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Washington—Cont'd.																				
Moxee	Yakima	1,000	18	54.4[a]	+ 4.1	95[a]	25	21[a]	3	51[a]	0.17	− 0.29	0.07	0.0	3	6	21	3	w.	Henry B. Scudder.
Newport	Stevens			48.7		91	25	21	14	55	1.95		0.67	4.5	9	16	9	5	sw.	Chas. M. Talmadge.
North Head	Pacific	211	8	47.1	− 0.4	57	15	38	6	15	3.44	+ 0.22	1.29	0.0	14	6	13	11	nw.	U. S. Weather Bureau.
Northport	Stevens	1,950	11	51.4		89	24	23	13†	53	0.40	− 0.63	0.20	0.0	3	18	9	3		John Palm.
North Yakima	Yakima	1,076	1	55.4		90	24†	28	3	41	0.08		0.05	0.0	2	18	8	4	nw.	Albert Bender.
Nutland	Klickitat		1	55.8		91	24†	29	26	40	0.52		0.32	0.0	3					J. R. Shepard.
Odessa	Lincoln	1,540	7	54.2		93	26	24	14	49	0.40		0.40	T.	1	8	15	7	sw.	Wm. U. Neeley.
Olga	San Juan	50	20	47.2	− 0.8	68	23	32	6	26	1.93	− 0.11	0.38	0.0	11	10	10	10	sw.	Cecil S. Willis.
Olympia	Thurston	200	32	48.9	0.0	87	23	29	14†	48	3.62	− 0.17	1.10	0.0	11	9	15	6	nw.	M. O'Connor.
Omak	Okanogan		1	55.6		92	25	24	14	48	0.00		0.00	0.0	0					Wm. G. Tait.
Oroville	do	922	1	53.8		90	24†	22	14	48	T.		T.	0.0	0	7[a]	17[a]	5[a]	s.	A. M. Dufield.
Peola	Garfield	5,000	1								2.06		0.56	6.1	13	15	5	10	sw.	Samuel Gruell, sr.
Pomeroy	do	1,500	18	54.8	+ 4.4	94	25	30	4	41	1.23	0.00	0.60	T.	7	14	12	4	w.	Peter McClung.
Port Crescent	Clallam	259	15	42.9	− 1.8	67	23	29	17	28	1.58	− 0.94	0.42	T.	16	3	23	4	nw.	U. S. Weather Bureau.
Port Townsend	Jefferson	80	20	47.9	− 0.6	71	23	35	6†	31	1.27	− 0.40	0.43	0.0	15	9	7	14	w.	Frank Plummer.
Pullman	Whitman	2,550	18	52.6	+ 5.3	88	25	29	1†	34	2.26	+ 0.87	0.75	1.0	8	13[a]	8[a]	6[a]	sw.	State Agricultural College
Quinault	Chehalis	300	3	48.2		80	24	31	14†	37	6.33		1.45	0.0	19	7	16	7	w.	A. V. Higley.
Republic	Ferry	2,628	10	47.2	+ 1.9	85	24	19	14	50	6.35		0.09	0.0	8	15	4	11	nw.	Geo. B. Stocking.
Rex Creek	Chelan	1,135	3			78[a]	20	33[m]	14	32[a]	0.39		0.15	0.0	4	6[l]	0[l]	12[l]	nw.	James W. Nicol.
Ritzville	Adams	1,825	11								1.09	+ 0.67	0.64	0.0	6					Northern Pacific Ry.
Rock Lake	Whitman	1,750	4	51.9		88	24	27	14	40	1.30		0.44	0.0	7	16	7	7	sw.	P. M. Ramsey.
Rosalia	do	2,425	18	50.5	+ 4.3	85	25	26	3	39	1.52	+ 0.11	0.80	1.5	6	9	10	11	sw.	Hans Mumm.
Russells Ranch	Yakima	2,870	1																	Maggie M. Russell.
Scenic Hot Springs	King	2,021																		J. V. Prosser.
Seattle	do	123	19	49.4	0.0	83	23	35	2	34	2.41	− 0.27	0.53	0.0	14	6	6	18	s.	U. S. Weather Bureau.
Sedro-Wooley	Skagit	38	13	53.4	+ 3.0	94	23	31	17	51	3.65	+ 0.46	1.11	0.0	15	5	13	12		Mrs. H. L. Devin.
Sixprong	Klickitat	1,240	3	56.6		93	25	30	14	37	0.71		0.40	0.0	6	11	7	12	sw.	C. E. Comstock.
Skagit Power Dam	Whatcom	123		48.8		86	25	31	17	44	5.00		1.50	0.0	15					Skagit Power Co.
Snohomish	Snohomish	50	16	48.6[d]	− 0.9	88[d]	23	31	15†	48[d]	2.85	− 0.59	0.47	0.0	15	9	7	14	nw.	Warren Hodge.
Snoqualmie Falls	King	667	11	49.8		86	23	32	30	45	4.21	+ 0.01	0.73	0.0	18	11	0	19		O. N. Wiswell.
Snyders Ranch	Okanogan	2,200	1								0.08		0.06	0.0	2	18	10	2	sw.	Geo. M. Snyder.
South Bend	Pacific	16	15	47.8	− 1.4	77	22	31	14	37	5.15	− 2.64	1.45	0.0	15	10	6	14	w.	Miss Winifred Eichner.
Spokane	Spokane	1,943	29	52.0	+ 4.3	87	25	30	3	38	1.32	+ 0.03	0.57	T.	9	5	9	16	sw.	U. S. Weather Bureau.
State University	King	170	1	48.3		83	23	35	2	38	2.66		0.53	0.0	13	9	8	13	s.	University of Washington.
Stokes Ranch	Okanogan	2,670	1								0.13		0.13	0.0	1	10[a]	14[a]	5[a]	sw.	Amos Stokes.
Sullivan Lake	Stevens	2,700									1.69		0.44	0.0	10	15	2	13		U. S. Forest Service.
Sumner	Pierce	77	2	49.0		86	23	31	15†	48	3.04		0.71	0.0	15	9	7	14	w.	H. E. Thompson
Sunnyside	Yakima	740	15	55.9	+ 4.4	94	25	24	14	49	0.44	+ 0.09	0.30	0.0	3	11	14	5	sw.	U. S. Reclamation Service.
Tacoma	Pierce	213	24	49.6	+ 0.7	85	23	34	2	39	2.86	+ 0.10	0.87	T.	12	10	7	13	sw.	U. S. Weather Bureau.
Tatoosh Island	Clallam	86	25	45.4	− 1.4	58	23	35	2	13	4.18	− 1.88	0.91	T.	19	5	7	18	s.	Do.
Tieton	Yakima	2,000	1	48.6		84	24†	27	14	44	1.05		0.56	2.3	8	19	5	6	w.	U. S. Reclamation Service.
Touchet	Walla Walla	556	3	56.3		91	24†	29	14†	48	0.72		0.23	0.0	6	10	11	9	sw.	D. W. Dorrance.
Touchet Ridge	Columbia	2,500	1								3.63		0.94	4.0	6	13	9	8	n.	R. H. King.
Trinidad	Grant	900	6	56.8		90	24†	34	13	38	0.26		0.20	0.0	2	19	8	3	nw.	J. C. Wheeler.
Twisp	Okanogan	1,619	7																	J. S. Allen, jr.
Tyee	Chelan	2,000	1								0.22		0.10	0.0	4	7	16	7	w.	Elias McCrea.
Vancouver	Clarke	100	35	53.2	+ 1.5	90	23	31	14	45	3.41	+ 0.85	0.87	0.0	12	6	15	9	nw.	A. A. Quarnberg.
Vashon Island	King	110	21	48.8	0.0	81	23	33	16	40	2.76	− 0.26	0.65	0.0	14	12	1	17	s.	Miss Gertrude McClintock
Wahluke	Grant	410	6	59.0[c]		93[b]	25	33[c]	15	42[c]	0.13		0.13	0.0	1	12	6	12		F. C. Koppen.
Wallace	Okanogan	4,000	1								0.25		0.12	0.0	4	11	18	1	s.	G. A. Wallace.
Walla Walla	Walla Walla	1,000	26	57.0	+ 4.2	92	25	34	14	36	1.47	− 0.23	0.44	0.0	8	11	13	6	s.	U. S. Weather Bureau.
Waterville	Douglas	2,624	20																	O. R. Hopewell.
Wenatchee (near)	Chelan	1,169	11	50.4	+ 2.4	84	24†	30	2	33	0.17	− 0.57	0.16	1.0	2	10	11	9	w.	Geo. A. Pitcher.
West Branch	Stevens	2,600																		U. S. Forest Service.
Wilbur	Lincoln	2,203	11	51.4	+ 5.8	87	24	26	3†	42	0.55	− 0.31	0.45	2.0	2	12	11	7	sw.	Rollin J. Reeves.
Yale	Cowlitz	375	3	51.2		89	22†	28	14	46	6.05		1.38	0.0	14	12	8	10	sw.	L. F. Williams.
Zindel	Asotin	715	8																	M. W. Zindel.
Oregon.																				
Albany	Linn	214	28	51.4	+ 0.4	90	23	31	14	43	1.89	− 1.18	0.30	0.0	12	15	7	8	n.	F. M. French.
Ashland	Jackson	1,940	22	55.4	+ 5.6	89	24	31	14	43	1.33	− 0.49	0.42	0.0	6	7	14	9	w.	F. H. Carter.
Astoria	Clatsop	11	48	49.5	− 0.2	69	17†	37	6†	30	5.05	− 1.21	1.34	0.0	15	15	4	11	nw.	Irving Club.
Baker City	Baker	3,466	20																	U. S. Weather Bureau.
Bay City	Tillamook	14	15	48.6	− 0.3	66	17†	31	28	34	5.24	− 1.53	1.10	0.0	17	10	10	10	nw.	J. O. Bozarth.
Bend	Crook	3,629	8																	F. O. Minor.
Birch Creek	Wheeler	2,900	1	55.1[d]		88[d]	23†	26[d]	4	39[d]	0.36		0.32	0.0	2	14	7	5	w.	F. S. Matteson.
Black Butte	Lane	1,200	9	50.2		84	24	29	3	35	2.02		0.50	0.0	9	15	8	7	ne.	William Harris.
Blalock	Gilliam	235	11	59.8	+ 4.1	95	25	34	14	40	0.24	− 0.30	0.20	0.0	2	9	10	10	w.	Geo. W. Long.
Buckhorn Farm	Josephine	1,300	12	56.9[a]	+ 6.3	90[a]	22†	28[a]	3	55[a]	1.21	− 1.88	0.45	0.0	7	13[a]	9[a]	7[a]	s.	E. F. Meissner.
Cascade Locks	Hood River	100	19	53.4	+ 1.6	86	23	31	14	38	5.14	− 0.61	1.18	0.0	15	13	7	10	w.	Val. W. Tompkins.
Casadero	Clackamas	514	1	54.2		88	23	34	15	44	3.77		0.81	0.0	17	9	5	16	nw.	Alf Drill.
Condon	Gilliam	2,888	2	49.0		86	25	25	14	40	0.34		0.22	0.0	3	15	10	5	ne.	C. H. Williams.
Connor Creek	Baker	1,800																		R. C. Eisele.
Corvallis	Benton	600	21	50.6	+ 0.5	87	22	30	14	46	2.47	− 0.38	0.46	0.0	10	9	4	17	sw.	Oregon Agricultural Coll.
Dayville	Grant	1,500	15	56.3	+ 6.3	95	24	25	4	59	0.33	− 0.65	0.13	0.0	6	15	10	5	nw.	Dr. Campbell-Martin.
Doraville	Columbia	600	8	48.8[a]		82[a]	23†	30	14	38[a]	3.84		0.85	0.0	16	8	6	16	nw.	Jos. Hackenberg.
Drain	Douglas	300	7	54.0		91	24	31	14	50	2.30		0.53	0.0	9	10	11	9	sw.	Ira Wimberly.
Echo	Umatilla	625	5	56.8[c]		93[c]	25	30[c]	15	42[c]	0.21		0.09	0.0	5	13	7	7	w.	R. B. Stanfield.
Ella	Morrow	850	5	56.2		90	24†	29	13†	47	0.36	− 0.13	0.11	0.0	6	11	14	5	sw.	C. F. Troedson.
Eugene	Lane	449	20	52.0	+ 1.8	86	24†	32	14	39	1.74	− 0.94	0.38	0.0	11	13	11	6	nw.	F. L. Barker.
Fairview	Coos	142	12	51.7	+ 1.4	86	17†	32	27	48	4.43	− 0.07	0.98	0.0	10	14	4	12	nw.	William Bettys.
Falls City	Polk	355	12	51.2	+ 2.2	88	24	28	28	50	5.38	− 1.06	1.68	0.0	11	14	16	10	e.	Chas. F. Vick.
Forest Grove	Washington	220	20	51.6	+ 2.2	86	24	26	21	47	3.19	+ 0.31	0.81	0.0	9	4	13	13	s.	Pacific University.
Gardiner	Douglas	72	20	51.7	+ 1.5	78	22	33	14	37	4.92	− 1.11	1.22	0.0	14	12	10	8		Hon. J. S. Gray.
Glendale	do	1,441	5	56.6		89	22†	31	27	46	3.01		1.18	0.0	8	11	14	5	nw.	C. Olson.
Glenora	Tillamook	575	18	49.4	+ 1.7	86	22†	27	27	51	7.19	− 2.97	2.00	0.0	14	8	6	16	sw.	Mrs. Jennie Reeher.
Gold Beach	Curry	40	8	49.6		67	17	33	14	30	3.05		0.80	0.0	7	17	0	13	nw.	C. Dewey.
Granite	Grant	4,680	4	46.2[c]		82[c]	24†	14[c]	4	52[c]	0.40[c]		0.15[c]	0.0	4	3[h]	12[h]	7[h]	se.	L. M. Ford.
Grants Pass	Josephine	956	21	55.1	+ 4.0	92	23	27	4†	53	0.78	− 0.89	0.44	0.0	8	10	12	8	sw.	John B. Paddock.
Grass Valley	Sherman	2,381	8	51.8		89	25	27	28	48	0.56		0.42	0.0	3	14	4	12	sw.	Oreg. Ry. & Navigation Co
Greenleaf	Lane	250	10																	Wm. H. Wheeler.
Grindstone	Crook	5,000		46.6		81	25	15	14†	50	0.35		0.10	0.5	5	14	6	10	s.	Orrin C. Mills.
Headworks	Clackamas	719	4	50.7		87	22	32	4	47	5.03	− 0.68	0.95	0.0	16	10	6	14	sw.	Portland Water Works.
Heppner	Morrow	1,950	21	53.4[c]	+ 5.0	92[b]	25	26[c]	14	40[c]	0.73	− 0.37	0.21	T.	8	14	8	8	nw.	Ralph Kenton.
Hermiston	Umatilla	450	3	59.2[a]		95[a]	25	27[a]	15	48[a]	0.34		0.10	0.0	6	13	9	7		C. W. Kellogg.
Hood River	Hood River	243	19	52.9	+ 3.4	89	24	31	15	50	0.45	− 1.59	0.25	0.0	5	19	1	10	w.	H. L. Hasbrouck.
Huntington	Baker	2,110	9	55.2		91	24	30	13	50	1.95		0.85	0.0	4	14	9	7		J. M. Day.
Jacksonville	Jackson	1 640	21	56.0	+ 5.0	89	17†	30	14	47	0.59	− 0.70	0.35	0.0	4	18	3	9		E. Britt.

TABLE 1.—*Climatological data for April, 1910. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Oregon—Cont'd.																				
Joseph	Wallowa	4,400	21	43.6	+ 1.8	82	25	19	14	40	2.24	+ 0.85	0.33	2.5	11	7	7	16	n.	F. F. McCully.
Le Grande	Union	2,784	24	52.4	+ 4.7	88	25	25	15	45	1.62	+ 0.08	0.54	0.0	10	13	9	8	se.	W. A. Worstell.
Madras	Crook	2,150	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Robert Rea.
Marshfield	Coos	12	6	50.6	.....	74	17	32	14	37	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. E. I. Mingus.
McKenzie Bridge	Lane	1,400	7	51.4	.....	91	22	24	4	57	2.58	.....	0.60	0.0	14	11	0	19	w.	Geo. Frissell.
McMinnville	Yamhill	180	22	52.0	+ 1.7	85	22†	30	14	46	3.46	+ 0.38	0.82	0.0	13	13	7	10	sw.	J. H. Pruett.
Mikkalo	Gilliam	1,600	4	53.0	.....	89	24	28	14	44	0.58	.....	0.25	0.0	7	19	5	6	w.	Frank Little.
Miramonte Farm	Clackamas	195	21	53.0	+ 2.4	86	24	30	14	44	3.64	+ 0.56	0.82	0.0	12	14	5	11	sw.	G. M. Muecke.
Monroe	Benton	350	13	52.2	+ 1.7	88	23	30	14	44	2.33	− 0.15	0.84	0.0	9	10[b]	6[b]	12[b]	sw.	L. A. Peck.
Mount Angel	Marion	485	24	53.5	+ 2.4	85	23	29	2	34	3.14	− 0.39	0.65	0.0	8	12	4	14	sw.	Dr. W. F. Fisher.
Mount Hood	Hood River	1,650	.....	.....	.....	.....	.....	.....	.....	.....	1.74	.....	0.80	0.0	8	17	6	7	w.	S. G. Babson.
Mountain Park	...do	1,550	4	50.2	.....	87	24	28	14	42	2.98	.....	1.20	T.	10	8[a]	7[a]	14[a]	w.	M. Markley.
Musick	Douglas	5,000	.....	43.2	.....	78	23†	11	3†	46	4.32	.....	0.71	14.5	12	15	2	13	sw.	Alex. Lundburg.
Newport	Linton	69	22	48.8	− 0.2	66	17	34	14	26	4.38	− 0.98	1.03	0.0	15	3	17	10	nw.	WilliamMatthews.
Pendleton	Umatilla	1,272	20	56.4	+ 4.8	94	25	27	15	46	1.04	+ 0.07	0.30	0.0	10	11	15	4	sw.	H. F. Johnson.
Pilot Rock	...do	1,872	1	55.4	.....	90	25	29	15	46	1.02	.....	0.23	T.	9	10	17	3	sw.	John P. McManus
Pompeii	Clackamas	3,580	15	.....	.....	77[i]	24	19[i]	14	33[i]	.....	.....	1.11[i]	12.0[i]	6[i]	10[i]	4[i]	7[i]	sw.	O. C. Yocum.
Portland	Multnomah	57	38	53.8	+ 0.9	89	22	34	14	35	3.78	− 0.70	1.32	0.0	12	7	9	14	sw.	U. S. Weather Bureau.
Prineville	Crook	3,000	13	53.0	+ 6.5	92	23†	19	14	56	0.57	− 0.24	0.25	0.0	5	17[a]	9[a]	3[a]	.....	
Prospect	Jackson	2,750	4	51.2	.....	88	17†	23	14	54	1.78	.....	0.55	1.0	10	12	11	7	sw.	E. F. Graham.
Ramsey	Wasco	1,350	.....	50.3	.....	84	24	26	14	39	1.10	.....	0.36	0.0	5	13	9	8	w.	Mrs. Iva B. Collins.
Range	Grant	3,500	1	41.0	.....	85	23†	10	11	57	0.70	.....	0.32	1.0	5	10	12	8	.....	Craig Thom.
Richland	Baker	2,350	8	53.0	.....	90	25	24	4	52	0.78	.....	0.25	0.0	5	16	6	8	.....	C. G. Morgan.
Riverside	Malheur	3,000	11	56.6	+ 8.1	90	24	19	14	56	0.60	− 0.02	0.35	0.0	3	15	11	4	w.	Mrs. Leah Fairman.
Roseburg	Douglas	523	33	54.2	+ 2.8	92	24	32	14	46	1.73	− 0.73	0.52	0.0	11	11	13	6	nw.	U. S. Weather Bureau.
Salem	Marion	120	20	52.6	+ 2.0	84	23†	34	14	36	2.20	− 0.74	0.44	0.0	11	6	5	19	nw.	M. P. Baldwin.
Siskiyou	Jackson	4,115	1	50.2	.....	81	23†	26	3	34	0.95	.....	0.48	0.0	4	12	8	10	e.	Lewis F. Bates.
Sparta	Baker	4,150	17	49.3	+ 5.6	81	24	23	14	38	0.45	− 1.01	0.20	3.0	5	18	10	2	w.	Hon. J. A. Wright.
Stafford	Clackamas	400	13	51.8	+ 1.4	86	23†	30	14	35	4.42	+ 0.92	0.99	0.0	14	.....	.....	.....	sw.	John P. Gage.
The Dalles	Wasco	112	35	54.8	+ 1.3	90	24	30	14	41	0.83	+ 0.17	0.30	0.0	5	15	4	11	w.	S. L. Brooks.
The Heads	Curry	300	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Willis T. White.
Toledo	Linton	50	20	51.4	+ 2.3	83	22	28	1	41	6.66	+ 0.80	1.20	0.0	12	16	10	4	n.	C. B. Crosno.
Umatilla	Umatilla	340	14	59.0	+ 4.4	95	24	32	15	43	0.20	− 0.36	0.05	0.0	6	13	3	16	w.	Mrs. Helen T. Duncan
Vale	Malheur	2,450	18	55.6	+ 7.1	93	25	21	16	55	0.60	− 0.22	0.34	0.0	3	22	8	0	nw.	H. P. Osborn.
Van	Harney	3,506	4	51.0[d]	.....	88[a]	24	21[d]	15†	54[d]	0.47	.....	0.42	0.0	2	12	13	5	nw.	Geo. Howe.
Wallace Orchard	Polk	170	1	51.6	.....	86	23†	30	14	44	2.65	.....	0.70	0.0	13	7	15	8	.....	Chas. A. Parks.
Wallowa	Wallowa	2,935	7	50.0	.....	89	25	25	15	53	2.85	.....	0.58	1.0	13	10	3	17	nw.	L. J. Coverstone.
Wasco	Wasco	1,500	2	56.0	.....	90	25	35	15	40	0.90	.....	0.30	0.0	5	14	7	9	w.	A. J. Swift.
Warmspring	Crook	1,600	8	55.1	.....	91	24	25	12†	48	0.54	.....	0.25	0.0	4	21	5	4	nw.	C. C. Covey.
Weston	Umatilla	1,800	20	54.4	+ 6.1	94	25	30	14	45	1.18	− 0.94	0.25	0.0	12	8	7	15	nw.	M. A. Baker.
Williams	Josephine	1,368	17	54.4	+ 4.6	92	23	28	14	54	0.86	− 0.65	0.45	0.0	5	9	8	13	n.	J. M. John.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning: the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for April, 1910. District No. 12, Columbia Valley.*

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Montana.																																	
Anaconda	Missoula	T.	.15	T.			T.		T.	T.		T.	.08		T.						T.						T.		.12		T.		0.35
Bison Mountain	...do		T.	.50			.02			.03											T.									.28			0.83
Columbia Falls	Flathead																																
Como	Bitter Root	.12	.22				.06	.03	.03	.03	.03		.02																.04	.16			0.74
Darby	...do																																
Dayton	Flathead			.25					.25		.25	.25																		.50			1.50
East Anaconda‖	Missoula	T.	.20	T.			T.		T.	T.		T.	T.	T.	T.						T.				T.		T.		.30		T.		0.50
Fortine	Flathead	T.	.32	.02			.05	T.	.03	.03	.04	.01		.02	T.						.09								.08	.01			0.72
Hamilton	Bitter Root								.05			.05																	.10				0.20
Hat Creek	Missoula	*	.06	.30			.05	T.	T.		.11	.09	T.	.19							T.				T.				.22	.05			1.07
Kalispell	Flathead	.05	.11	.21				T.	.15	.09	.01	.04	.03	T.							.10								.07				0.86
Lost Creek	Missoula			.03				T.		T.																		.08					0.11
McGinnis Meadows	Kootenai																																
Missoula	Missoula	.03	.42	T.					.03	T.	.10	.08		T.	T.						T.							T.					0.66
Ophir	...do	*	*	.73			T.		.05	.05		.07			.06														.11	T.			1.07
Ovando	...do																																
Philipsburg	...do	T.	.12	.11						T.		T.			T.														.12	.02			0.37
Plains	Columbia		T.					T.	T.	.10											T.												0.10
Pleasant Valley	Kootenai	T.	.20	T.				.06	.10	.15	.04	.06	.02	.02							.20								.04				0.89
Poison	Flathead								.45				.40								.15												1.00
St. Ignatius	...do	.01	.09	.14	T.	T.				.18	.03	.21	.06	.02							.20								.07	.02			1.03
St. Regis	Missoula	.06	.38					.17	.18	.25	.02	.10																	.19				1.35
Saltese	...do	.12	.42					.23	.37					.28																			1.42
Snowshoe	Kootenai																																
Troy	...do		.67				.60	.15	.23	.12	.08	.03	T.	T.							T.												1.88
Upper Lake McDonald	Flathead																																
Wyoming.																																	
Afton	Snake			.40									.02	.08	.06															.05	.50		1.11
Alta	...do	.01	.15	.26									.42	.29	.26							.10											1.49
Bedford	...do		.05	.19				T.							.05														.08	T.			0.37
Snake River	...do	.20	.20	.60				.20			.20			.40	.20							.20								.20	.20		2.60
Nevada.																																	
San Jacinto	Snake			.04			.07			.18		.21	T.								T.									.27	.09		0.86
Utah.																																	
Standrod	Raft	.13		.17			.03						.03			T.													.65		.38		1.39
Idaho.																																	
Atlanta	Boise																																
Albion	Upper Snake	T.	.25	.30			T.																					T.	.70	.03	.18		1.46
Almo	...do		T.	T.								.37										T.								.42		0.79
American Falls	...do																																
Blackfoot‖	...do	.03	.11	.13						T.											.15						T.	.15		.10		0.67
Blackfoot Dam	...do		T.	.12			T.	.01		.07		.01		.01							.05	.02						.21	.08	.19		0.77
Blanche	Middle Snake																																
Bock's Ranch	Boise	.23	.24				.04																						.46	.02	.11		1.10
Bogus Creek	Payette	.40	.54				.07					.47									.08								.83	.27	.17		2.83
Boise	Boise	.11	.14	T.			.08				T.	.04									.01								.59		.13		1.10
Bonners Ferry	Upper Columbia	T.	.42	.06				.10	.14	.26	.09	.08	.05								.36								T.	.04			1.60
Boulder Mine	Boise	.16	.70	.09							T.	.14									.01								.58	.12	.21		2.01
Buhl	Upper Snake		.20							T.																	T.	.37		.25			0.82
Burke	Upper Columbia	.15	1.40	.17			.48	.05	.77	.37		.15	.08	.02							.53								.21				4.38
Caldwell	Boise	.08	.06				.04		T.			.43																	.25		.19		1.05
Camas	Lost River Region	.46						.10	.04	.21											T.						T.	.06	.31	.20	.06		1.44
Cambridge	Middle Snake	.31	.25	.02			.25					.70																	.13	.07			1.73
Chesterfield	Upper Snake		T.	.10									.09		T.						.11								T.		.42		0.72
Clawson	...do			.01									.10	.20							.08								.30	.10	.10		0.89
Cœur d'Alene	Upper Columbia																																
Cottonwood Creek	Boise	.25	.50																								.50	1.02	.35	.05			2.67
Crawford	Payette	.50	.52									.80																	.50		.20		2.52
Culdesac	Clearwater			.80			.27		.63	.06												.92											2.68
Deary	...do																																
Dent	...do	.40	.65					.31	.10	.09	.21										.28								.18				2.22
Driggs	Upper Snake	.06	.23	.07			T.				T.		.03	T.	.23						T.							.28					0.92
Edie	Lost River Region														T.						T.								.30	.55	.55		1.40
Edwardsburg	Salmon																																
Emmett‖	Payette																																
Forney	Salmon		.10	.15								.05									.05								.02	.03			0.40
Garden Valley	Payette	.34	.54	.04			.18		T.			.33																	.30	.09	.30		2.12
Garnet	Middle Snake	.06																											.73				0.79
Gilbert	Clearwater																																
Glenns Ferry	Middle Snake	.10	.48	.05			.03																						.20		.08		0.94
Gooding	Wood-Malad	.01	.20	.10			T.			T.	.23																		.10	.02	.11		0.77
Grand Forks	Upper Columbia	.24	1.32		.14		.55	.31	.77	.25	.04	.26	.08								.33								.18				4.47
Grandview	Middle Snake	T.	.02				.03					.03																	.17		.14		0.39
Green Timber	Upper Snake																																
Grimes Pass‖	Boise	.41	.45				.31						.05																.41	.42	.16		2.21
Guffey	Middle Snake	.12	.06				.11				T.																		.21		.07		0.57
Hailey	Wood-Malad	.06	.34	.11			T.				.10	.03	T.																T.		.17		0.81
Hotspring	Middle Snake	T.	.60				.09																						.46		.15		1.30
Idaho City	Boise	.22	.60	T.			.16					.19																	.28	.17			1.62
Idaho Falls	Upper Snake			.04		T.								T.														T.	.02				0.06
Indian Valley‖	Middle Snake																																
Irwin	Upper Snake		.39	T.										T.	.44						T.									.25	.06		1.11
Kellogg‖	Upper Columbia		.74	.67			.20		.34	.24	.10	.14									.21									.07			2.80
Kirkham	Payette		1.30				.40																					.70			.20		2.60
Kooskia	Clearwater	.46	.38	.33			.47	T.		T.		.54	.10	.20							.63								.25				3.36
Lake	Upper Snake																																
Lakeview	Upper Columbia	.05	1.30	.10		.30		.35	.35	.30	.15	.15								.10													3.15
Landore	Middle Snake	.58	.72	.30			.23	.01	.28	T.	.20	.60	.46	T.	.06						.30							T.	.44		T.		4.18
Lewiston	Clearwater	.03	.29	.06			.01	.15	.26	.05	.09	.02									.20								.20				1.36
Little Camas	Boise	.25	.43	.05			T.																						.47		.23		1.43
Long Gulch	...do	.35	.15									.14								T.									.62	.09	.25		1.90
Loon Creek	Salmon	.25	.30	.23			.08		.03	T.	.03	.03	.05	T.	.02						T.							.10	.07	.03	.15		1.37
Lost River	Lost River Region	.06																															0.06
Lowry	Owyhee																																
McCall	Payette	.21	.23	.21			.35					.36																	.67		T.		2.03
Mackay‖	Lost River Region	T.	.03	.03	.03			T.			.11	.04		.11	T.						.10												0.45
Meadows	Salmon	.22	.40	.22			.35		.23		.02	.63									.14								.68		.03		2.92
Milner	Upper Snake			.47						.05	.04																		.26	T.	.29		1.11
Moscow	Upper Columbia	.09	.59	.02				.26	.26	.28	.03	.06		.01							.15								.02				1.77
Mountainhome	Middle Snake	T.	.17				T.																						.27	.09			0.53
Murtaugh‖	Upper Snake		.08	.50							T.																	T.		.49	T.		1.07
Nez Perce‖	Clearwater																																
Oakley	Upper Snake			T.																								.10			.05		0.15
O'Hara Bar	Clearwater																																

TABLE 2.—*Daily precipitation for April, 1910. District No. 12*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Idaho—Cont'd.																																	
Orofino	Clearwater	.19	.40	.50	.02		.13	.10	.16	.12	.19	.11	.02	.07							.25								.20				2.46
Payette	Payette	.15	.11				.05				T.	.30									T.								.17		.19		0.97
Pebble	Upper Snake		.04	.46									T.			T.						.07							.06	.03	.40		1.06
Pierson	Salmon		.62	.45																								.40			.60		2.07
Pine	Boise																																
Placerville	....do																																
Pleasant Valley	....do	.20	.06				.04				.06	.07								.	T.								.40		.21		1.04
Pocatello	Upper Snake	.02	.69	T.			T.								.04						.31						T.	T.	.35		.13		1.54
Pocatello Nursery	....do														.05						.20								.48	.05	.53		1.31
Poplar	....do	.16	.17	.22			.06			T.	T.								.22	T.	.16							T.	.09		T.		1.08
Porthill	Upper Columbia	.02	.17			.06	.11		.12	.10	.03	.11		T.															.01				0.73
Powers Ranch	Boise	.10	.35				.14					.09									.08								.86		.10		1.72
Pyle Creek	Payette	.31	.66	T.			.17	T.				.37																	.57	.13			2.21
Rattlesnake Creek	Boise	.30	.60	.04			.10			T.											.02								.48	.10	.20		1.84
Ruby Creek	....do	.22	.70	.01			.25					.11									.04								.98	.09	.08		2.48
Rupert	Upper Snake	T.	.05	.25			T.			.01	.01																		.18	T.	.09		0.59
Salmon	Salmon	T.	.10	.02						.07	.01		T.	T.	T.												T.	.10	.11		T.		0.41
Salmon River Dam	Middle Snake	T.	.15	.06			T.			.34	.01	.01	.01								T.						T.		.21		T.		0.79
Sheep Hill	Boise	.25	.47	T.			.01					.04								T.	.02								.20	.15	.25		1.39
Shoshone	Wood-Malad	T.	.14	.07																									.10	.02	T.		0.33
Silver City	Owyhee	.53	.23	T.							.02	.28									.14								.34		.36		1.90
Smith Prairie	Boise	.32		.24			.07				.10																	.28	.34	.11	.15		1.61
Soldier	Wood-Malad																																
Sugar[‖]	Upper Snake	.04	.24				T.			.05		T.	T.	.04							.05							T.	.15	.04	.01		0.62
Sunnyside[‖]	Middle Snake	T.	.11	T.																									.65	.15	T.		0.91
Tilden	Upper Snake																																
Tripod Mountain	Payette	.41	.13				.12				.11										T.									.65	.20		1.62
Twin Falls	Twin Falls		.05	.15																									.40		.13		0.73
Vernon	Upper Snake	.12	.33				.10				.03			.06	T.						T.							T.	.13		.08		0.85
Wallace	Upper Columbia	.17	1.36	.01			.37	.10	.68	.48	.01	.01	.05	.08					.26		T.								.09		T.		3.67
Wendell	Upper Snake																																
Washington.																																	
Aberdeen	Coast	.48	.68	.13	.09	.34	.03	1.72	.26		.65	.28	.18	.23						.12	.09												5.28
Anacortes	Puget Sound	.03	.26	.01	.17	.33		.07	.08	.22	.10	.08		.02																			1.37
Baker	....do	.20	.60		.05	.92	.14	.88	.63		.54	.11	.11	.31																			4.49
Bellingham	....do			T.	.10	.68		.19	.36		.35	.06		.01							.23					T.							1.98
Blaine	....do	.08	.25	.01	.20	.66		.45	.04	.26	.13	.15	.05	T.							.08					.28							2.64
Blewett	Wenatchee	.05	.40					.09		.05	.10																				.05		0.74
Bremerton	Puget Sound	.04	.42		.04	.02	.43	.27	.50	.27		.15			.02		.11													.03			2.30
Brewster	Columbia		.12								T.	.06																					0.18
Bumping Lake	Yakima																																
Cashmere	Wenatchee	T.	.25					T.	T.		T.	.11	T.																				0.36
Cedar River	Puget Sound	.25	.69	.31	.05	.13	.49	.57	.78	.39	.29	.06	.11	.07			.11										26			.06			4.62
Centralia	Coast	.12	.65		T.	.18		.58	.88		.53	.10	.06	.19							.03						T.						3.32
Cheney	Spokane		.29		.13		.07	.17	T.	.22																							0.88
Clealum	Yakima		.69	.03				.03	.08			.22		T.																.13			1.18
Clearbrook	Puget Sound	.25	.25	.02		1.60		.53																	.28								2.93
Clearwater	Coast																																
Colfax	Palouse																																
Colville	Columbia	.02	.03							.19	.16	.06	.02																				0.48
Conconully	Okanogan		T.							.46	.03	.18																					0.67
Cowiche	Yakima																																
Crescent	Spokane		.35							.42																							0.77
Davenport	Columbia		.26	.32			T.		.02	.35		T.																					0.95
Dayton	....do																																
Detroit	Puget Sound	.30	.52		.02	.04		.99	.55	.10	.09	.07	.13	.04			.05												.01		.01		2.92
Dixie	Columbia	.43	.34	.40			1.02	.19	.10	.37	.19	.15	.02	.02							.58									.05		.07	3.33
Duckabush	Puget Sound	.12	.16	.22		.63	.25	.79	.22	.46	.05		.07	.10	.17				.05	.01	T.										.03		3.33
East Sound	....do	.06	.50	.05	.59		.32	.80		.18			T.	.10		T.				.03		T.						.17		T.			2.89
Ellensburg	Yakima		.21									.09																			.07		0.37
Ephrata	Columbia																																0.00
Forks	Fort Simcoe	.92	.87			.40	T.	1.88	.58	.21	.05	.05	.23	T.	.22	.01	.13	.02			.30	.02				.70	.06	.02	.25				6.92
Fort Simcoe	Yakima		.40									.13																			.50		1.00
Goat Lake	Puget Sound			1.64	.28	.42	.60	.18	.81	.32	.05	.17	.08	.44	.12			.01			.31						.02			.05			5.50
Gold Creek	Yakima		.35									.36																		.18			0.89
Goldendale	Columbia																																
Granite Falls	Puget Sound	.30	.49	.10	.09	.78	.43	.22	.80	.55	.26	.05	.10	.49	T.		.04				.22								.23				5.15
Hatton	Columbia		.22		.05			.10	*	.47	.05									T.						T.							0.89
Huntsville	....do	.05	.38			.34		.25	T.	.15	.06	.02								.38													1.63
Irene Mountain	....do						.02		T.		.09	.05	.02													T.		T.					0.18
Kennewick	....do	.10					.02		.03		.05	.03														T.							0.23
Kettle Falls	....do								.04	.11	.07	.19																					0.41
Kiona	Yakima		.08							.23		.03																					0.34
Kosmos	Columbia																																
La Center	....do	.05	.82			.28		1.00	.97		T.	T.	.28	.10			T.			.03	T.					T.					.15		3.68
La Crosse	Palouse	.03	.35	.06			.21	.15	.35	.15	.16	.03		T.						T.	.17												1.66
Lake Clealum	Yakima	.08	.67	T.	.02			.18	.24			.28	T.	.06																.03	T.		1.56
Lake Kachess	....do	.15	1.20	.30	T.	.05	T.	.25	.25			.18	T.	.20							.27									T.	.08		2.93
Lake Keechelus	....do	.50	1.40	.60	.45			.40	.46			.36	.40	.40							.45								T.	T.			5.42
Lakeside	Columbia	T.	.03				T.				T.	.05														T.							0.08
Laurel	....do	.20	.80					.60	.20	.05	.30	.03																		.28			2.46
Laurier	Kettle								.10	.10	T.	.09	.14																	.01			0.44
Lester	Puget Sound	.25	.95	.30			.10	.40	.40			.10									.45						.05			.20			3.20
Lone Tree	Coast	.88	.51	.55	.18	.32	.05	1.65	.57	.07	.14	.39	.29	.07	.01	T.				.03	.01					.01	.02			.02	T.		5.77
Longmiresprings	Puget Sound																																
Lost Creek	Columbia										.08	.12																					0.20
Lyle	....do																																
McCumbers Ranch	....do																																
Mottinger	....do		.05				.05			.14	.02																				.02		0.28
Mount Pleasant	....do	.20	.75	.10		.10	.60	.70	.90	.10	.01	.20	.03	.05							.30										.38		4.42
Moxee	Yakima		.07							T.		.07																			.03		0.17
Newport	Pend d'Oreille	.15	.67	.41		T.	.07	.12	.08	.32	.05	.08		T.																			1.95
North Head	Coast	.16	.26			.25	.03	1.24	.81	.01	.29	.25	.05	.02		.01				.05	T.				.01	T.			T.				3.44
Northport	Columbia	.05	T.						.15	.20																							0.40
North Yakima	Yakima		.05							T.	T.	T.		T.												T.				T.	.03		0.08
Nutland	Columbia		.16							.32																					.04		0.52
Odessa	....do		T.						T.	.40		T.								T.													0.40
Olga	Puget Sound	.16	.37		.15	.28		.38	.16		.04	.05	T.	.04							.24				.06								1.93
Olympia	....do	.22	.70		.05	.20		1.10	.72	.17	.18	.13	.08	.07													T.						3.62
Omak	Okanogan																																0.00
Oroville	....do												T.																				T.
Peola	Snake	.03	.56	.15			.08	.24	.10	.38	.13	.11		.06						T.	.05								.16	.01			2.06
Pomeroy	....do		.60	.05			T.	.05	.03	.30	.15	.05		T.							T.												1.23
Port Crescent	Coast	.10	.25		.04	.23		.42	.06	.01	.01	T.	.04	.06						.09	.01	T.				.06	.02		.04	.14			1.58

TABLE 2.—*Daily precipitation for April, 1910. District No. 13*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Washington—Cont'd.																																	
Port Townsend	Puget Sound	.04	.02	.10	.03	.32	.11	.02	.03	.10	.12	.05	.02	.20								.03							.08				1.27
Pullman	Palouse		.75	.10	.15	T.		.15	.18	.30	.53										.10											2.26
Quinisault	Coast	.60	1.10	.14	.12	.42	.01	1.45	.70		.08	.28	.35	.27						.03	.34	.05				.02	.18	.01		.18			6.33
Republic	Kettle					.01			.01	.09	.09	.03	.04	.03															.05			0.35
Rex Creek	Columbia	.08			T.	.12			.04	T.	.15			T.																		0.39
Ritzville	do		.22	.01		.05		.12		.64		.05																				1.09
Rock Lake	Palouse		.34	.12			.10		.14	.44	.14									.02												1.30
Rosalia	do		.80				.08	.30	.11	.05				T.							.18											1.52
Russells Ranch	Yakima																															
Scenic Hot Springs	King																															
Seattle	Puget Sound	.08	.29	.07	T.	.38	.01	.44	.49	T.	.19	.08	T.	.26			.06			.01						T.	T.		.01	.04			2.41
Sedro-Woolley	do	.13	.40	.01	.05	1.11	.07	.35	.43	.43	.18	.10	.09	.14							.13									.06			3.65
Sixprong	Columbia		.09					.01	.01	.19	.01															T.				.40		0.71
Skagit Power Dam	Puget Sound	.45	.36	.06	.08	1.50	.10	.96	.60	.38	.06	.09	.07	.10			.04				.15												5.00
Snohomish	do	.10	.29	.15	.02	.40	.47	.25	.35	.39	.16	.08	.04	.02							.10									.03			2.85
Snoqualmie Falls	do	.26	.73	.24	.03	.01	.50	.62	.69	.26	.16	.07	.05	.07	.41		.04					.01							.04	.02			4.21
Snyders Ranch	Columbia								.02	.06	T.																					0.08
South Bend	Coast	.66	1.11	.13	.02	.15	.02	1.45	.66	.14	.14	.23	.15	.07						.04	.18						T.						5.15
Spokane	Spokane	.05	.57			.11		.03	.06	.43	.01			T.						.04	.02								T.			1.32
State University	Puget Sound	.02	.53	.15	.01	.01	.51	.30	.38	.43	.12	.12					.05													.03			2.66
Stokes Ranch	Columbia										.13	T.																				0.13
Sullivan Lake	Pend d'Oreille	.19	.10			.01	.14		.22	.44	.10	.22	.25	.02						T.												1.60
Sumner	Puget Sound	.20	.48	.25	.01	.10	.07	.45	.71	.27	.15	.14	.04	.07			.09													.01			3.04
Sunnyside	Yakima		.12							.30	T.									T.									.02			6.44
Tacoma	Puget Sound	.14	.82	T.	.01	.14		.79	.58	.01	.10	.09	.03	.05			.10			T.										T.			2.86
Tatoosh Island	Coast	.43	.63	.04	.47	.12	.04	.79	.15	.03	T.		.29	.13		.08				.07	.02	.27				T.	.05	.01	.31	.25			4.18
Tieton	Yakima	T.	.56					.04	.01	.02	.01	.19																		.08	.14		1.05
Touchet	Columbia	T.	.15				.18	T.	.01	.23	T.	.03								T.	.12										T.		0.72
Touchet Ridge	do	.30	.94				.92		T.	.72	.25									.50											T.		3.63
Trinidad	do		.06									.20																				0.26
Twisp	do																															
Tyee	do	.05			.03			.10				.04																				0.22
Vancouver	do	.11	.87			.31	T.	.68	.78	.17	.10	.11	T.	.02							.08								.06	.12		3.41
Vashon Island	Puget Sound	.17	.44	.04	.12	.22	.08	.65	.51	.18	.12	.07	.02	T.			.09	T.											.05	T.		2.76
Wahluke	Columbia		.13																													0.13
Wallace	Okanogan		T.		.01					.10	.02	.12																				0.25
Walla Walla	Columbia	T.	.22	T.		.44		.10	.02	.32	.05			T.						.26	.06								T.		T.		1.47
Waterville	do																															
Wenatchee (near)	do	T.	.16					T.		T.		.01		T.															T.				0.17
West Branch	Spokane																															
Wilbur	Columbia			.45							.10			T.						T.												0.55
Yale	do	.50	1.35	.28		.20	.06	1.38	1.24	.20	.12	.08	.12	.06							.23						T.			.23		6.05
Zindel	Snake																															
Oregon.																																
Albany	Willamette	.03	.26	.20			.14	.04	.12	.12	.20	.30	T.		.02							.16								.30			1.89
Ashland	Rogue	T.	T.			T.		T.	T.	T.										.42	.12						.01	.36	.32	.10		1.33
Astoria	Columbia	.49	.67	.12	T.	.33	.08	1.34	.93	.12	.24	.49	.05	.01	T.		T.			T.	.09					T.	.07			.02			5.05
Bagleys Ranch	Snake	.04	.07	.04			.05	T.	T.		.08	.10									.06								.07				0.51
Baker City	do																															
Bay City	Coast	.47	.63	.12		.12	.14	1.10	1.02	.25	.34	.44	.15	.08	.01						.13					.08	.04			.12			5.24
Bear Creek	Deschutes		.06																											.09			0.15
Bear Valley	John Day	T.																	.10										T.			0.10
Beaver Creek	Deschutes																															
Beach Creek	John Day		.19				.01				.05	.08									.16							T.		.20		0.69
Bellfountain	Willamette	.12	.78	.31		.02	.21	.02	T.	.28	.34	T.	.03	T.						T.									.17	.28		2.56
Bend	Deschutes																															
Big Basin	John Day		T.								.01									.01												0.02
Birch Creek	do										T.										.04									.32		0.36
Black Butte	Willamette	.10	.53	.30				.20		.35		.15	.20							.12						.10						2.02
Blalock	Columbia		T.						.20	.04	T.																			T.		0.24
Blue M't'n Sawmill	Umatilla		.70	.30			.60	.15			.55	.20									.35								15			3.00
Buckhorn Farm	Coast		.20						.04	.17	.12	.13																		.45	.10		1.21
Buena Vista	Snake																															
Butte Falls	Rogue	.08	.30	.01			.04			.01	.05	.01									.30						.06		.13	.56	.33		1.88
Cablevilie	Snake																															
California Gulch	Umatilla		.20				.31		.12	.22										.15										.34			1.34
Canyon City	John Day	.02	.16				.11	T.	T.	T.	.01									.13								.06			.30		0.79
Cascade Locks	Columbia	.39	1.04	.59	.02	T.	.11	1.18	.59	.10	.12	.15	.10	.13							.22	T.					.08			.32		5.14
Cascadia	Willamette	.38	.53			T.	.38	.43	.02	.35		.31	.07	.23							.03						.18		.17	.28		3.36
Casedero	do	.23	.81	.14		.07	.60	.47	.38	.17	.01	.12	.01	.08	.06						.18						.06		.02	.36		3.77
Columbia Mine	Snake	.01	.50							.01		.17		.02							.06											0.77
Condon	John Day	T.						.03	T.	.22	.06	T.	T.							T.										.33			0.34
Connor Creek	Snake																															
Coquille River L. H.	Coast		.49			.09		.04	.08	.20	.30	1.30	.20							T.						T.	.06		.17	.24		3.17
Cornucopia	Snake	.22	.33	.17			.07	.02	.08	T.	.19	.65									.15							.35		T.		2.23
Corvallis	Willamette	.34	.35				.07	.16			.30	.28		.02							.07								.42	.46		2.47
Cracker Creek	Snake	T.	.03	.03				T.	T.	.04	T.		T.																	.03			0.13
Crescent	Deschutes																															
Dayville	John Day	T.	.05						.05	T.	.02		T.								.13					T.		.05		.03			0.33
Doraville	Columbia	.16	.75	.19	T.	.09	.04	.56	.85	.20	.19	.23	.13	.22	.02						.04						.01			.07			3.84
Drain	Umpqua	.26	.33	.13			.05			.39	.12	.53	T.																	.17	.32		2.30
Dufur	Deschutes		.18	T.			.06			.40	.08	.09																			34		1.15
Duncan	Umatilla		.10	.10						.10									.30	.41		.20			.22				.25			1.68
Echo	do		.05				.04	.01		.09	T.	.02													T.								0.21
Elkhorn Ranch	Coast	.21	1.70	.12		.06	.05	.05		.35	.48	.85	.16	.04						.22					.04	.15			.19	.49			5.16
Ella	Columbia	.02	.10					.02		.11										.06						T.			.05	T.			0.36
Embody	Deschutes	T.	.02	T.						T.																			.02	.01			0 05
Eugene	Willamette		.11	.28			.18	.01	.05	.34	.11	.21	.05	T.													.02			.33			1.74
Fairview	Coast	.73	.66	T.		T.	T.	.08	.12	.34	.76	.98	.20																	.26	.30		4.43
Fall City	Willamette	.23	1.68	.24				1.20	.53	.06	.40	.35		.04																.15	.50		5.38
Fir Glen	Coast	.25	.50	.19		T.				.43	.58	.52									.05									.26	.32		3.10
Florence	do	.17	.60	.04		.08	.04	.80	.37	.07	.98	.64	.07								.09					.02	.12			.19	.37		4.65
Forest Grove	Willamette	.18	.49			.12	.09	.81	.80		.49	.19	.02																				3.19
Fort Rock	Interior		.04																									.08		.14		0.27
Galice	Rogue		.21							.03	.15	.03																		.32	.33		1.07
Gardiner	Umpqua	.18	.88			.05	.10	.35	.05	.30	.86	1.22	.11	.04							.14									.20	.44		4.92
Glendale	do	.08							.07	.10	1.18	.32				.11														.60	.55		3.01
Glenora	Coast	.30	2.30	.50		.05		1.45	.87		.73	.20	.50	.10													.20		.08	.07	.14		7.19
Gold Beach	Rogue		.54							.80	.70	.25														.13				.28	.35		3.05
Granite	John Day	T.	.10	.05				T.		T.		.15		.10																			0.40
Grants Pass	Rogue		.01				.01			.11			.01	.04						.03										.44	.13		0.78
Grass Valley	John Day							.12		.02																				.42			0.56
Greenhorn	Snake	.10	.39	.34			.10				.07			T.	T.						.03								T.		.10		1.15
Greenleaf	Coast																															

TABLE 2.—*Daily precipitation for April, 1910. District No. 13*—Continued.

Stations.	River basins.	Day of month.																													Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Oregon—Cont'd.																																	
Grindstone	Deschutes	.07								T.	T.	.05	T.																.06	.10	.07		0.35
Gumboot	Snake	.32	.32	.22			.19		.09		.14	.72			T.						.29								.40				2.69
Gurdane	Columbia	T.	.12				.06		.16	.16	.04	.60		T.							.15							T.		.36		1.59
Happy Home	Umpqua	.20	1.04			.08	.14			.50	.35	.45	.14								T.					.14	.08			.22	.28		3.62
Hay Creek	Deschutes		.08							.10	.06																		.05		.26		0.55
Haseldell	Willamette	.24	.48		T.			T.	.20	.14				T.						24										.31	T.		1.61
Head Works	do	.33	.95	.12		.15	.65	.87	.51	.18	.06	.26	.04	.12							.22						.08			.07	.42		5.03
Heppner	Columbia		.11				.06		T.	.08	.09	.02		T.							.06								.21		.10		0.73
Hermiston	Umatilla		.09				.03	.02		.09	.10	.01																					0.34
Hilgard	Grande Ronde		.20				.20		.10	.40	.20	.25																.05		T.			1.40
Hood River	Columbia							.04	.01	T.			.05																	.10	.25		0.45
Hoover	Willamette	.90	.85				.16	.53	.09			.30									.41								.33				3.24
Howardville Station	Grande Ronde	.03	.61	.10			.10	.03	.31	.11		.51		.09							.31								.16		.05		2.41
Huntington	Snake		.18						.17		.85	.15																					1.95
Ibex Mine	John Day	.08	.38	.40			.34	T.	T.	.02	.03	.06		.01	T.					T.	.10							T.		.03			1.15
Ironside	Snake		T.	T.				T.	T.			.07																					0.07
Jacksonville	Rogue									.03										.10								T.		.35	.11		0.59
Joseph	Grande Ronde	.41		.20		.24	.16				.20	.32	.10	.03	.05														.33		.20		2.24
Kamela	do	.10	.30						.20	.10	.10	.30								.15										.10		1.35
La Grande	do	.07	.17		.07		.16		.54	.27	.01	.21	T.	.01						.11												1.62
Lilyglen	Rogue	.13	T.			.03			.02	.11	.02	T.	.06								.19								.43	.48	.18		1.65
Long Creek	John Day	.10	.15					.12		.05	.12										.12								.15				0.81
Madras	Deschutes																																
Maury	do	.07	.08					T.	.02	.08																		T.			.17		0.42
McKenzie Bridge	Willamette	.41	.60	.36			.11	.02		.28	.04	.12	.02	.12							.20	.02								.09	.19		2.58
McMinnville	do	.21	.73	.09		.08	.01	.82	.44	.16	.20	.29		.02												T.	T.			.09	.32		3.46
Meacham	Umatilla															.01	.01	.01	.02	.09	.13												0.27
Metolius	Deschutes	.01	.30	.10				T.		.08	.05	T.	T.	T.																.05	.02		0.61
Mikkalo	John Day		.17					.04	.02	.25	.02	.02																			.06		0.58
Miller Prairie	Columbia	.20	.02	.20					.02	.07	.07	.07	.02	.03																.25	.25		1.20
Miramonte Farm	Willamette	.09	.82	.02		.40	.21	.59	.64	.18	.08	.17	T.								T.									.02	.42		3.64
Monroe	do	.01	.84	.17		.01	.11		.02		.57	T.																		.19	.41		2.33
Mountainhome	Columbia	.21	1.13	.14		.15		.60	.98		.45	.11	.28	.24																T.	.02		4.31
Mount Angel	Willamette		.65			.47		.37	.48	.10	.38										.23									.46			3.14
Mount Hood	Columbia	T.	.80					.26	.05	.07	.02		T.	T.							.06						.08				.40		1.74
Mountain Park	do	.21	1.20	.35				.45	.04		.24	T.	T.	.08							.08							.06		T.	.27		2.98
Mountain Ranch	Rogue		.20							.15	.13	.23																		.60	.10		1.41
Musick	Umpqua	.19	.71	.22			.40				.70	.32	.25	.22							.37	.26	.33							.14	.47		4.32
Newport	Coast	.19	.35	.02		.09		1.00	1.03	.08	.54	.37	.03								.11						.08	.10		.19	.20		4.38
Nigger Flat	Malheur																																
Ochoco	Deschutes	T.	T.			.02			.30		T.																		.30	T.	.14		0.76
Ochoco Creek	do		.19			.02				.11	.06																		T.	.15	.10		0.63
Owyhee	Owyhee	.11		.05								.22						T.											T.		.17		0.55
Pendleton	Umatilla	T.	.03	.01			.30	T.	.03	.18	.02	.03									.14								.21		.09		1.04
Persist	Rogue		.29																	.21	.35					.17		.02	.05	.49	.54		2.12
Pilot Rock	Umatilla	.01	.08				.22		.06	.12		.02									.23								.20		.08		1.02
Pompeii	Willamette	.35	1.11	.52	*	*	*	*	*	*	*	*	*	1.91							.55						T.			T.	.32		4.76
Portland	do	.21	1.16			.45	.04	.98	.59	.09	.13	.04	T.	T.			T.				.01									.06	.02		3.78
Post	Deschutes	.02	.05									.05																	.08		T.		0.20
Power House	Walla Walla																																
Prineville	Deschutes		.10			.02		T.		.15																			.25	.05			0.57
Prospect	Rogue	.05	.55	.10		T.	.12				.05									.32	.05					.04			.10		.40		1.78
Rager Creek	Deschutes																																
Ramsey	Columbia		.22					T.		.36	.10	.06																			.36		1.10
Range	John Day	T.	.08	.32					.16	.09	.05						T.												T.				0.70
Ray Creek	Columbia		.05																												.29		0.34
Reston	Umpqua	.18	.37	.12			T.			.57	.68	.47									.09									.22	.47		3.17
Richland	Snake	.05	.25						T.		.11	.25																	.12				0.78
Riverdale Ranch	Deschutes																																
Riverside	Malheur		.10																									T.		.35	.15		0.60
Rock Creek	Willamette	.15	1.86					.71	.12	T.	.34							.48												.50			4.16
Roseburg	Umpqua	.01	.10			.05	.01		.01	.51	.39	.09	T.							.02										.49	.05		1.73
Rosland	Deschutes	.02				.03		T.	.05	.18		T.															.02	.20	.05	.04		0.59
Salem	Willamette	T.	.44			T.	.08	.29	.05	.28	.16	.28	.02	T.							.08					T.				.10	.42		2.20
Seneca	Interior	.02	.09			.01																									.27		0.39
Siskiyou	Rogue	T.	.04				T.			T.	T.		T.																.48	.32	.11		0.95
Sisters	Deschutes	T.	.30	.08						.05	.03	.04	T.																.05	.08	.03		0.66
Sparta	Snake		.20	.10					.03		.10																				.02		0.45
Stafford	Willamette	.17	.99	.01		.31	.31	.84	.89	.18	.04	.18	.01	.09																.01	.39		4.42
Starkey	Grande Ronde		.25			.30			T.	.23	T.			.10													.10			T.			0.98
Summit	Willamette	.20	1.28	.12			.05	.83	.17	.08	.50	.50	.17	.09						.20						T.	T.			.20	.18		4.57
Summit Prairie	Deschutes																																
Susanville	John Day	.01	.27	.13			.13				.03	.03									.13								.02		.08		0.83
Tamarack	do		.28							.20	.10																						0.58
Telocaset	Snake		.02					.02	.22	.02	.01	.01										.02							.01				0.33
The Dalles	Columbia		.16	.05				.06	T.	.26	T.	T.																			.30		0.83
The Heads	Coast																																
Tinroof Cabin	Umatilla	.02	.19					.30	.08	.38										T.	.31								.11		.20		1.59
Toledo	Coast	.40	1.10					1.20	.70		1.20	.70	.10							.20					.41		.15			.20	.30		6.66
Trask	do		.70	1.00	1.38	.12		1.54	.94		.60	.60		.25						.33										.19	.18		7.83
Umatilla	Columbia		.05			.03		T.	.08	.01	.01									T.										.02			0.20
Unity	Snake	.05	.14	.03								.04																	.02		.02		0.30
Vale	Malheur	T.	.08																										.18		.34		0.60
Van	do	T.	T.	T.					.05																						.42		0.47
Wallace Orchard	Willamette	.06	.70	.01		.05	.05	.38	.28	.22	.22	.26	T.													.06					.09	.27		2.65
Walloupa	Grande Ronde	.03	.79	.10	T.		.11	.64	.33	.13	.09	.42	.03	.01	.01						.15								.33				2.57
Wallowa	do	.16	.37	.05				.01	.58	.40	.10	.58	.13	.01							.23								.15		.08		2.85
Wamic	Deschutes																																
Warmspring	do		.10						.09	.10																					.25		0.54
Wasco	Columbia		.30						.03	.26	.01																				.30		0.90
Welches	Umatilla		1.63	.50			.20	.43	.73	.22	.03		.23	.56							.38					.04					.58		5.53
Weneha Springs	do	.21	.22	.10		.57		.02	.04	.30	.05	.11									.25								.15		.06		2.07
Weston	Walla Walla	.10	.25	.05			.25	.07	.03	.07	.10	.03	T.	T.							.10								.10		.03		1.18
Willamina	Willamette																																
Williams	Rogue	T.	.02	T.							T.	.13									.11									.45	.15		0.86

TABLE 3.—*Maximum and minimum temperatures at selected stations for April, 1910. District No. 12, Columbia Valley.*

Date.	Montana.						Idaho.																			
	Kalispell.		Missoula.		Afton, Wyo.		Boise.		Bonners Ferry.		Hotspring.		Lewiston.		Mackay.[1]		Meadows.		Pocatello.		Salmon.		Shoshone.		Vernon.		Wallace.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	44	28	53	29	57	27	62	43	45	30	70	45	50	38	.....	28	45	23	62	38	67	25	63	35	56	32	46	29
2...	48	35	44	34	55	33	52	37	46	33	60	43	52	41	.....	19	42	22	54	33	54	32	50	34	46	34	40	33
3...	43	31	47	31	50	17	48	34	50	25	54	32	55	39	.....	22	45	27	43	28	49	26	48	27	41	25	44	31
4...	46	33	56	31	40	14	57	31	51	34	60	27	63	36	.....	23	55	21	49	29	57	25	54	27	47	19	52	33
5...	66	33	70	30	53	18	69	44	65	38	71	33	74	44	.....	20	65	25	60	35	70	22	64	30	58	25	67	33
6...	54	37	57	38	55	23	61	48	53	38	68	46	60	43	.....	23	62	36	58	38	58	39	58	38	57	30	50	38
7...	49	33	60	30	54	25	68	43	45	30	72	41	55	42	.....	23	53	30	64	35	70	27	65	32	60	31	47	30
8...	50	41	64	40	64	25	77	45	53	38	80	45	66	48	.....	30	69	40	71	40	79	37	74	38	69	32	52	37
9...	52	41	70	37	69	28	73	48	60	40	78	43	59	49	.....	31	68	32	71	46	78	30	72	43	70	30	49	39
10...	60	35	68	39	77	29	73	53	65	40	76	44	70	49	.....	35	66	39	71	43	71	35	71	41	69	34	65	34
11...	58	42	63	45	67	28	61	47	65	41	79	39	68	53	.....	39	63	42	69	50	70	41	66	43	68	37	58	39
12...	60	43	64	42	65	30	63	39	55	38	78	40	66	49	.....	34	62	37	63	43	70	35	65	35	65	39	56	39
13...	47	35	47	39	57	29	54	37	54	34	73	38	55	40	.....	32	54	34	56	36	59	35	58	38	57	37	52	33
14...	48	25	50	31	44	20	50	30	57	22	70	31	58	34	.....	22	48	22	43	27	57	22	50	27	42	20	51	24
15...	54	25	60	26	44	15	58	29	54	28	64	27	65	34	.....	21	60	21	52	25	60	14	58	20	54	16	60	25
16...	64	28	71	27	58	18	74	35	68	27	77	32	72	37	.....	30	70	34	67	33	72	22	72	26	66	23	69	29
17...	67	34	75	31	65	25	77	44	78	38	81	40	79	44	.....	33	75	28	71	38	77	27	75	33	71	24	75	34
18...	75	35	83	36	71	27	83	46	80	35	85	41	90	48	.....	35	78	29	77	40	83	27	79	39	74	33	85	36
19...	77	42	83	40	73	27	87	56	78	38	88	59	82	50	.....	35	80	33	79	48	87	32	82	45	78	35	80	40
20...	60	46	78	43	65	25	71	48	68	40	85	54	66	47	.....	31	65	43	69	42	67	50	72	53	69	35	62	44
21...	57	34	62	33	57	25	67	37	57	37	78	35	66	42	.....	36	69	23	63	34	73	28	66	31	60	22	58	31
22...	67	33	73	35	63	23	78	42	74	30	86	36	78	43	.....	36	76	29	72	37	77	32	74	33	68	37	73	33
23...	73	36	83	34	75	28	85	48	73	30	85	35	89	48	.....	35	78	28	78	41	82	28	78	42	75	35	85	35
24...	82	40	87	37	74	27	91	53	87	38	91	46	88	50	.....	40	81	33	80	43	86	31	82	46	78	37	86	39
25...	84	43	90	40	77	30	91	55	88	38	93	48	92	50	.....	39	87	32	83	46	88	30	85	47	81	36	91	40
26...	76	45	81	47	78	29	83	58	74	43	91	48	68	46	.....	39	75	40	84	49	78	32	79	49	82	37	72	46
27...	70	40	75	42	77	33	71	48	72	32	78	48	66	40	.....	50	65	33	79	50	81	48	76	46	76	40	67	30
28...	56	40	69	45	70	37	60	44	60	37	78	49	58	48	.....	30	68	42	62	42	66	48	64	45	68	43	61	38
29...	53	35	58	34	56	32	57	36	58	32	62	39	63	38	.....	31	59	32	54	39	60	38	56	35	52	33	55	33
30...	55	27	62	26	51	24	52	44	61	24	64	46	65	40	.....	30	56	33	47	37	65	30	53	37	55	25	60	27
31...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mns	59.8	35.8	66.8	35.7	62.0	25.7	68.4	43.4	63.1	34.1	75.8	41.0	67.9	43.7	.....	31.1	64.6	31.1	65.0	38.8	70.4	31.6	67.0	37.2	63.7	31.2	62.3	34.4

Date.	Washington.																									
	Aberdeen.		Blaine.		Colville.		Kosmos.		Lakeside.		North Head.		North Yakima.		Odessa.		Port Crescent.		Seattle.		Sisprong.		Spokane.		Tacoma.		Tatoosh Island.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	47	40	47	39	58	35	.....	.....	56	38	46	41	60	38	53	34	43	35	47	39	57	42	46	34	49	40	45	37
2...	49	36	45	33	62	37	.....	.....	47	38	46	41	52	39	51	35	47	33	47	35	53	37	42	33	46	34	46	35
3...	51	39	49	37	58	32	.....	.....	58	35	48	42	61	28	62	30	48	30	51	39	57	34	51	30	52	40	47	39
4...	49	44	44	39	52	31	.....	.....	59	39	50	43	67	39	61	31	46	39	50	44	68	35	56	36	52	43	46	41
5...	49	40	49	41	68	34	.....	.....	60	40	47	43	72	40	70	43	46	33	51	38	71	47	67	46	53	41	46	39
6...	48	34	48	33	62	41	.....	.....	56	38	46	38	58	36	62	35	44	33	48	37	63	37	50	39	49	35	44	36
7...	47	40	46	39	57	38	.....	.....	56	37	47	43	60	36	60	37	46	36	48	39	60	44	49	42	50	39	48	38
8...	49	39	49	42	55	43	.....	.....	52	39	47	43	65	43	63	41	47	37	46	42	68	45	59	46	48	41	47	42
9...	55	43	52	40	61	43	.....	.....	60	40	47	42	61	45	64	44	48	34	51	43	60	48	56	46	51	42	50	40
10...	52	40	50	36	66	37	.....	.....	52	42	51	45	64	42	66	36	47	34	47	42	61	43	66	45	46	42	52	41
11...	53	43	47	43	68	43	.....	.....	62	44	49	45	71	48	64	34	52	41	51	43	67	49	62	48	54	43	51	42
12...	48	37	50	43	66	41	.....	.....	65	40	47	43	68	36	62	38	48	35	51	42	64	41	58	44	54	39	47	38
13...	49	37	51	38	55	38	.....	.....	54	36	45	40	56	37	60	30	48	30	49	38	56	37	48	36	50	36	47	36
14...	57	33	50	37	60	23	.....	.....	60	34	48	39	60	33	65	24	46	29	51	39	56	30	53	32	52	36	47	38
15...	64	36	60	34	63	26	.....	.....	68	34	57	43	68	29	67	27	51	31	67	37	66	35	61	31	70	37	53	42
16...	56	38	60	41	67	29	.....	.....	70	40	45	43	75	34	74	27	46	32	51	40	74	42	66	34	51	40	47	40
17...	70	34	55	30	78	30	.....	.....	67	42	56	41	80	42	79	30	55	29	59	39	81	46	74	41	61	36	52	39
18...	68	48	60	40	83	32	.....	.....	70	44	55	48	86	45	84	45	57	43	74	45	90	53	84	47	76	44	56	47
19...	64	43	61	42	84	42	.....	.....	76	47	54	47	86	54	83	47	52	43	59	48	81	55	79	49	61	47	49	45
20...	60	42	57	42	73	48	.....	.....	68	49	53	45	66	43	72	47	50	40	58	47	75	42	62	47	59	46	49	44
21...	63	41	55	45	55	33	.....	.....	73	40	54	48	71	40	68	43	52	37	59	46	72	44	59	41	60	44	49	45
22...	76	48	64	40	73	35	.....	.....	73	42	55	45	82	42	65	37	61	33	71	45	81	45	72	42	73	42	55	43
23...	64	45	70	39	87	32	.....	.....	73	43	54	46	86	52	82	40	67	43	83	49	88	47	83	48	85	46	58	45
24...	72	50	64	40	89	38	.....	.....	80	46	50	44	90	52	89	49	49	40	71	47	90	53	84	46	78	43	50	45
25...	56	44	64	43	92	38	.....	.....	86	50	51	48	90	50	91	50	59	39	61	50	93	57	87	52	58	50	51	47
26...	57	42	61	45	76	51	.....	.....	84	54	52	47	67	50	93	55	55	38	60	47	82	47	63	45	59	48	50	42
27...	57	34	56	35	70	29	.....	.....	65	40	48	43	69	37	79	51	50	31	56	44	74	36	65	39	57	41	50	40
28...	62	37	57	33	64	38	.....	.....	63	45	52	45	64	46	75	44	51	33	57	43	67	47	61	44	57	38	50	43
29...	66	38	57	35	60	29	.....	.....	60	37	57	46	66	34	71	30	53	34	56	45	67	33	57	36	59	44	54	43
30...	66	36	59	33	68	25	.....	.....	66	36	54	46	66	44	70	31	55	31	62	40	61	46	63	38	64	39	55	43
31...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mns	57.5	40.1	54.6	38.6	67.7	35.7	.....	.....	64.6	41.0	50.4	43.8	69.6	41.1	70.2	38.2	50.6	35.2	56.4	42.4	70.1	43.2	62.8	41.2	57.9	41.2	49.7	41.2

TABLE 3.—*Maximum and minimum temperatures at selected stations for April, 1910. District No. 12*—Continued.

Date.	Walla Walla, Wash.		Oregon.																					
			Ashland.		Baker City.		Eugene.		Gold Beach.		Hermiston.		Marshfield.		Portland.		Prineville.		Roseburg.		The Dalles.		Vale.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	52	44	60	46	.....	.....	62	41	55	38	64	37	51	37	50	40	66	48	54	42	62	43	64	33
2	53	39	58	42	.....	.....	55	43	52	47	65	37	53	46	50	41	56	34	54	39	50	40	57	42
3	55	38	54	35	.....	.....	70	35	55	38	62	39	54	40	57	40	65	27	56	36	54	33	54	31
4	67	41	70	47	.....	.....	65	35	65	38	73	37	66	34	64	41	72	24	73	32	66	37	68	40
5	75	49	62	42	.....	.....	65	40	56	38	76	40	53	43	55	45	74	34	65	39	66	43	58	24
6	57	41	61	42	.....	.....	62	41	57	36	72	40	55	43	53	41	62	36	61	43	56	40	71	52
7	53	46	62	36	.....	.....	58	41	60	40	59	45	55	42	51	43	62	38	60	44	53	42	65	50
8	67	47	61	40	.....	.....	49	45	60	48	73	47	62	50	54	45	69	40	70	45	62	43	74	68
9	56	50	60	42	.....	.....	64	43	57	47	70	61	56	44	56	45	61	52	62	46	58	48	74	51
10	62	46	64	43	.....	.....	57	45	61	48	66	43	61	49	56	46	60	37	60	46	58	45	71	37
11	64	51	64	44	.....	.....	56	46	56	47	71	50	59	47	60	46	64	34	60	46	63	46	71	31
12	65	48	63	40	.....	.....	63	46	60	44	70	45	55	42	56	43	64	28	62	46	61	44	66	29
13	52	38	58	42	.....	.....	59	40	53	40	68	40	55	40	51	40	51	30	57	36	54	40	58	31
14	56	34	65	31	.....	.....	55	32	56	33	61	31	57	32	57	34	61	19	64	32	58	30	76	31
15	69	40	75	37	.....	.....	58	36	63	37	72	27	62	35	72	41	74	24	77	34	66	32	69	30
16	74	47	75	43	.....	.....	71	42	59	35	77	53	55	47	57	45	78	29	67	38	65	40	76	21
17	81	52	87	46	.....	.....	59	40	67	37	83	39	74	37	75	42	88	32	79	41	78	40	82	33
18	88	52	85	50	.....	.....	70	45	58	44	89	41	56	45	84	49	89	34	84	46	84	44	85	32
19	84	52	75	48	.....	.....	82	44	61	43	88	46	60	42	62	49	85	45	60	44	80	53	85	40
20	65	50	62	44	.....	.....	59	48	61	48	80	50	60	48	65	50	65	36	63	47	64	46	73	52
21	69	47	77	39	.....	.....	63	46	60	48	75	46	62	49	67	46	79	29	74	50	73	44	71	31
22	83	50	85	42	.....	.....	69	43	60	42	84	56	72	42	82	48	91	35	88	43	82	42	82	33
23	84	51	87	54	.....	.....	79	43	56	41	89	40	63	45	89	55	92	56	91	49	87	46	86	33
24	89	60	89	51	.....	.....	86	48	55	42	93	44	63	47	85	50	92	40	92	46	90	50	91	37
25	92	58	84	54	.....	.....	86	47	58	47	95	53	65	46	65	53	90	40	67	48	85	50	93	38
26	65	49	62	43	.....	.....	61	42	56	37	92	50	59	40	63	48	.....	.....	62	36	65	49	87	47
27	65	43	65	39	.....	.....	62	35	56	35	71	34	55	35	63	43	68	29	65	35	70	38	71	42
28	62	45	61	43	.....	.....	63	39	56	36	70	51	59	37	60	42	61	38	63	36	65	46	68	50
29	65	51	52	39	.....	.....	61	39	53	37	69	31	54	37	65	43	55	38	55	40	70	40	66	29
30	60	45	58	41	.....	.....	55	45	58	44	.....	.....	61	46	60	48	64	25	39	44	64	48	59	41
31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Means	67.6	46.5	68.0	42.8	.....	.....	62.1	41.8	58.0	41.2	75.1[a]	43.2[a]	59.1	42.2	62.8	44.7	71.0[a]	34.9[a]	66.8	41.6	67.0	42.7	72.4	38.9

PAPERS ON CLIMATOLOGY IN RELATION TO AGRICULTURE, TRANSPORTATION, WATER RESOURCES, ETC.

A METHOD FOR REDUCING A SHORT-RECORD TEMPERATURE MEAN TO THE 33-YEAR NORMAL.

By Prof. FRANK H. BIGELOW, In charge, Climatological Division.

It is very desirable to reduce all the cooperative temperature observations, as well as those of the regular Weather Bureau stations, to the same homogeneous system. Bulletin S contains the data for about 100 regular Weather Bureau stations having a long record, which have been already reduced to the 33-year normal, now in use by the Weather Bureau. From this bulletin can be obtained a system of homogeneous departures of temperature for each month by subtracting the 33-year normal from the monthly mean temperature. When these departures are assembled on charts of the United States, lines of equal departure can be drawn which will display the monthly variations of the temperature in respect to the adopted normal basis. Such charts have been prepared and are now being printed by the chalk-plate process at several stations, and they will be collected in a volume. These charts are complete from January, 1873, to July, 1909, 475 in number, including the annual charts for each year. This series is being continued in the MONTHLY WEATHER REVIEW, and will in the future show the temperature variations in the United States.

It is obvious that by interpolation from these charts the departures of temperature can be obtained for each month of any year of the series at all other stations in the United States. For the cooperative stations it is, therefore, necessary only to fix the point on the chart and read off as carefully as possible the apparent departure of temperature for the month. As an example of the method of computation the accompanying table for Dayton, Ohio, exhibits the details of the computation in full.

Take the series of years available at the station, as 1896 to 1908, inclusive, for Dayton. Write down the monthly mean temperatures for each year and take the mean. Subtract this mean from each temperature under T and the departures ΔT will be found in the third column. Scale off from the map the apparent departures and enter them in the fourth column under Map. Subtract in succession the values under Map from the values under ΔT and write down the algebraic difference in the fifth column. In this column of differences sum up the positive and negative values, take the algebraic sum, and divide by the number of years, 13 in this case. Thus we have for January +0.8 and −12.4, the sum being −11.6. Divide this by 13 and the mean is −0.9, which is the correction to be applied to the mean temperature of the 13 years under consideration to produce that temperature which corresponds to the 33-year normal; that is, 30.3 minus 0.9 equals 29.4. With this new normal value, 29.4, repeat the subtraction under column T and write the differences in the last column under ΔT_0. For a check add up the numbers under Map algebraically, the final sum being +11.1; and under the last column ΔT_0 add the numbers up similarly, the result being +11.2. This checks the work and shows that the adjusted normal temperature, 29.4, gives departures ΔT_0, which are in close agreement with those scaled from the maps. Similarly the correction for the February mean is +3.2, changing the temperature from 28.3 to 31.5; and so on for the other months of the year. The annual mean can be found by taking the mean of the 12 adjusted values for the month. While there is some uncertainty, of course, in scaling from the charts it is evident that if the record extends over several years these accidental errors will tend to eliminate themselves, so that the final average correction will be very near the truth.

If the section director in each State will in this way adjust the temperature records for the important cooperative stations we shall have a temperature system, whose departures will be considerably smoother than those now in use, and which will conform very closely to the long-period normal of 33 years.

Reduction of a short-record temperature mean to the 33-year normal.

DAYTON, OHIO.

Year.	January.					February.				
	T.	ΔT.	Map.	Diff.	ΔT_0.	T.	ΔT.	Map.	Diff.	ΔT_0.
	°	°	°	°	°	°	°	°	°	°
1896	32.0	+ 1.7	+ 2.1	− 0.4	+ 2.6	33.8	+ 5.5	+ 0.6	+ 4.9	+ 2.3
1897	27.7	− 2.6	− 2.6	0.0	− 1.7	35.2	+ 6.9	+ 2.4	+ 4.5	+ 3.7
1898	34.0	+ 3.7	+ 4.9	− 1.2	+ 4.6	33.0	+ 4.7	+ 0.5	+ 4.2	+ 1.5
1899	31.2	+ 0.9	+ 0.3	+ 0.6	+ 1.8	23.2	− 5.1	− 8.2	+ 3.1	− 8.3
1900	33.8	+ 3.5	+ 3.3	+ 0.2	+ 4.4	28.5	+ 0.2	− 3.7	+ 3.9	− 3.0
1901	30.2	− 0.1	+ 1.0	− 1.1	+ 0.8	24.4	− 3.9	− 8.0	+ 4.1	− 7.1
1902	28.9	− 1.4	− 0.5	− 0.9	− 0.5	22.2	− 6.1	− 8.0	+ 1.9	− 9.3
1903	28.2	− 2.1	− 0.8	− 1.3	− 1.2	32.0	+ 3.7	+ 0.3	+ 3.4	+ 0.5
1904	21.3	− 9.0	− 6.0	− 3.0	− 8.1	25.4	− 2.9	− 5.6	+ 2.7	− 6.1
1905	24.4	− 5.9	− 5.2	− 0.7	− 5.0	22.1	− 6.2	− 8.3	+ 2.1	− 9.4
1906	36.0	+ 5.7	+ 7.5	− 1.8	+ 6.6	28.4	+ 0.1	0.0	+ 0.1	− 3.1
1907	34.7	+ 4.4	+ 5.0	− 0.6	+ 5.3	29.0	+ 0.7	− 2.8	+ 3.5	− 2.5
1908	31.0	+ 0.7	+ 2.1	− 1.4	+ 1.6	30.2	+ 1.9	− 1.6	+ 3.5	− 1.3
Means	30.3	.....	+26.2	+ 0.8	+27.7	28.3	.....	+ 3.8	+41.9	+ 8.0
	.....	.....	−15.1	−12.4	−16.5	.....	.....	−46.2	0.0	−50.1
Red. m	29.4	.....	+11.1	− 0.9	+11.2	31.5	.....	−42.4	+ 3.2	−42.1

	March.					April.				
1896	35.6	− 6.6	− 5.6	− 1.0	− 5.2	60.0	+ 9.0	+ 7.2	+ 1.8	+ 8.2
1897	44.8	+ 2.6	+ 3.8	− 1.2	+ 4.0	51.0	0.0	− 1.5	+ 1.5	− 0.8
1898	47.1	+ 4.9	+ 6.0	− 1.1	+ 6.3	49.4	− 1.6	− 2.9	+ 1.3	− 2.4
1899	39.5	− 2.7	− 2.2	− 0.5	− 1.3	56.9	+ 5.9	+ 2.9	+ 3.0	+ 5.1
1900	35.6	+ 6.6	− 5.5	− 1.1	− 5.2	52.4	+ 1.4	+ 0.3	+ 1.1	+ 0.6
1901	41.9	− 0.3	0.0	− 0.3	+ 1.1	48.0	− 3.0	− 3.0	0.0	− 3.8
1902	43.0	+ 0.8	+ 3.0	− 2.2	+ 2.2	49.3	− 1.7	− 1.8	+ 0.1	− 2.5
1903	47.6	+ 5.4	+ 7.5	− 2.1	+ 6.8	51.2	+ 0.2	− 0.4	+ 0.6	− 0.6
1904	41.8	− 0.4	+ 0.5	− 0.9	+ 1.0	45.4	− 5.6	− 6.2	+ 0.6	− 6.4
1905	45.8	+ 3.6	+ 5.0	− 1.4	+ 5.0	51.2	+ 0.2	− 0.7	+ 0.9	− 0.6
1906	32.3	− 9.9	− 7.2	− 2.7	− 8.5	53.8	+ 2.8	+ 3.2	− 0.4	+ 2.0
1907	49.4	+ 7.2	+ 8.0	− 0.8	+ 8.6	42.8	− 8.2	− 8.2	0.0	− 9.0
1908	44.8	+ 2.6	+ 5.5	− 2.9	+ 4.0	52.2	+ 1.2	+ 1.0	+ 0.2	+ 0.4
Means	42.2	.....	+39.3	0.0	+39.0	51.0	.....	+14.6	+11.1	+16.3
			−20.5	−18.2	−20.2	.....	.....	−24.7	− 0.4	−26.1
Red. m	40.8	.....	+18.8	− 1.4	−18.8	51.8	.....	−10.1	+ 0.8	− 9.8

	May.					June.				
1896	71.2	+ 7.9	+ 6.2	+ 1.7	+ 7.9	72.0	+ 0.8	− 0.8	+ 1.6	− 0.4
1897	58.4	− 4.9	− 5.0	+ 0.1	− 4.9	71.1	− 0.1	− 1.8	+ 1.7	− 1.3
1898	64.0	+ 0.7	− 0.3	+ 1.0	+ 0.7	73.7	+ 2.5	+ 2.0	+ 0.5	+ 1.3
1899	65.4	+ 2.1	+ 1.7	+ 0.4	+ 2.1	74.2	+ 3.0	+ 1.3	+ 1.7	+ 1.8
1900	65.2	+ 1.9	+ 1.2	+ 0.7	+ 1.9	72.4	+ 1.2	− 1.0	+ 2.2	0.0
1901	60.4	− 2.9	− 2.8	− 0.1	− 2.9	73.8	+ 2.6	+ 0.6	+ 2.0	+ 1.4
1902	65.4	+ 2.1	+ 1.8	+ 0.3	+ 2.1	69.8	− 1.4	− 2.8	+ 1.4	− 2.6
1903	65.2	+ 1.9	+ 2.8	− 0.9	+ 1.9	66.0	− 5.2	− 6.3	+ 1.1	− 6.4
1904	61.6	− 1.7	− 1.0	− 0.7	− 1.7	70.2	− 1.0	− 2.0	+ 1.0	− 2.2
1905	62.3	− 1.0	− 0.2	− 0.8	− 1.0	71.8	+ 0.6	0.0	+ 0.6	− 0.6
1906	63.2	− 0.1	+ 0.4	− 0.5	− 0.1	71.3	+ 0.1	− 1.0	+ 1.1	− 1.1
1907	56.2	− 7.1	− 6.0	− 1.1	− 7.1	67.9	− 3.3	− 4.0	+ 0.7	− 4.5
1908	64.2	+ 0.9	+ 1.6	− 0.7	+ 0.9	70.8	− 0.4	− 0.8	+ 0.4	− 1.6
Means	63.3	.....	+15.7	+ 4.2	+17.5	71.2	.....	+ 3.9	+16.0	+ 4.5
	.....	.....	−15.3	− 4.8	−17.7	.....	.....	−20.5	0.0	−20.7
Red. m	63.3	.....	+ 0.4	0.0	− 0.2	72.4	.....	−16.6	+ 1.2	−16.2

	July.					August.				
1896	76.5	+ 0.6	− 1.6	+ 2.2	+ 0.3	74.4	0.0	− 0.2	+ 0.2	+ 0.2
1897	78.5	+ 2.6	+ 0.6	+ 2.0	+ 2.3	71.9	− 2.5	− 2.3	− 0.2	− 2.3
1898	74.2	− 1.7	+ 0.7	− 2.4	− 2.0	75.2	+ 0.8	+ 1.2	− 0.4	+ 1.0
1899	76.0	+ 0.1	− 0.8	+ 0.9	− 0.2	76.6	+ 2.2	+ 2.2	0.0	+ 2.4
1900	76.4	+ 0.5	− 0.7	+ 1.2	+ 0.2	79.2	+ 4.8	+ 4.5	+ 0.3	+ 5.0
1901	80.7	+ 4.8	+ 4.2	+ 0.6	+ 4.5	75.8	+ 1.4	+ 1.0	+ 0.4	+ 1.6
1902	75.8	− 0.1	− 0.2	+ 0.1	− 0.4	71.9	− 2.5	− 2.0	− 0.5	− 2.3
1903	75.2	− 0.7	− 0.4	− 0.3	− 1.0	74.3	− 0.1	− 1.8	+ 1.7	+ 0.1
1904	73.6	− 2.3	− 2.7	+ 0.4	− 2.6	71.6	− 2.8	− 2.0	− 0.8	− 2.6
1905	74.8	− 1.1	− 1.7	+ 0.6	− 1.4	74.0	− 0.4	+ 0.2	− 0.6	− 0.2
1906	74.0	− 1.9	− 1.6	− 0.3	− 2.2	76.6	+ 2.2	+ 3.2	− 1.0	+ 2.4
1907	75.0	− 0.9	− 1.0	+ 0.1	− 1.2	71.6	− 2.8	− 1.6	− 1.2	− 2.6
1908	75.8	− 0.1	+ 0.6	− 0.7	− 0.4	73.8	− 0.6	+ 0.3	− 0.9	− 0.4
Means	75.9	.....	+ 6.1	+ 8.1	+ 7.3	74.4	.....	+12.6	+ 2.6	+12.7
	.....	.....	−10.7	− 3.7	−11.4	.....	.....	− 9.9	− 5.6	−10.2
Red. m	76.2	.....	− 4.6	+ 0.3	− 4.1	74.2	.....	+ 2.7	− 0.2	+ 2.5

Reduction of a short-record temperature mean to the 33-year normal.

DAYTON, OHIO—Continued.

Year.	September.					October.				
	T.	$\Delta T.$	Map.	Diff.	$\Delta T_0.$	*T.*	$\Delta T.$	Map.	Diff.	$\Delta T_0.$
	°	°	°	°	°	°	°	°	°	°
1896...	64.4	− 3.6	− 3.0	− 0.6	− 2.9	51.0	− 4.7	− 4.0	− 0.7	− 4.1
1897...	69.0	+ 1.0	+ 2.0	− 1.0	+ 1.7	60.4	+ 4.7	+ 4.8	− 0.1	+ 5.3
1898...	70.6	+ 2.6	+ 2.5	+ 0.1	+ 3.3	56.4	+ 0.7	− 0.2	+ 0.9	+ 1.3
1899...	67.2	− 0.8	− 1.9	+ 1.1	− 0.1	59.4	+ 3.7	+ 3.8	− 0.1	+ 4.3
1900...	72.8	+ 4.8	+ 4.0	+ 0.8	+ 5.5	63.0	+ 7.3	+ 7.0	+ 0.3	+ 7.9
1901...	66.7	− 1.3	− 0.4	− 0.9	− 0.6	54.8	− 0.9	0.0	− 0.9	− 0.3
1902...	65.4	− 2.6	− 2.2	− 0.4	− 1.9	56.4	+ 0.7	+ 1.2	− 0.5	+ 1.3
1903...	67.4	− 0.6	0.0	− 0.6	+ 0.1	55.6	− 0.1	− 0.2	+ 0.1	+ 0.5
1904...	66.6	− 1.4	0.0	− 1.4	− 0.7	53.6	− 2.1	− 1.6	− 0.5	− 1.5
1905...	66.8	− 1.2	+ 0.7	− 1.9	− 0.5	53.8	− 1.9	− 0.9	− 1.0	− 1.3
1906...	70.8	+ 2.8	+ 3.5	− 0.7	+ 3.5	53.8	− 1.9	+ 0.1	− 2.0	− 1.3
1907...	67.2	− 0.8	+ 0.4	− 1.2	− 0.1	50.6	− 5.1	− 3.8	− 1.3	− 4.5
1908...	69.2	+ 1.2	+ 4.0	− 2.8	+ 1.9	54.9	− 0.8	+ 1.0	− 1.8	− 0.2
Means	68.0	.....	+17.1	+ 2.0	+16.0	55.7	.....	+17.9	+ 1.3	+20.6
	.....	.....	− 7.5	−11.5	− 6.8	.....	.....	−10.7	− 8.9	−13.2
Red.m	67.3	.....	+ 9.6	− 0.7	+ 9.2	55.1	.....	+ 7.2	− 0.6	+ 7.4

Reduction of a short-record temperature mean to the 33-year normal.

DAYTON, OHIO—Continued.

Year.	November.					December.				
	T.	$\Delta T.$	Map.	Diff.	$\Delta T_0.$	*T.*	$\Delta T.$	Map.	Diff.	$\Delta T_0.$
	°	°	°	°	°	°	°	°	°	°
1896...	46.8	+ 4.1	+ 3.0	+ 1.1	+ 4.5	36.2	+ 4.4	+ 1.7	+ 2.7	+ 2.9
1897...	44.2	+ 1.5	+ 1.3	+ 0.2	+ 1.9	34.0	+ 2.2	+ 0.4	+ 1.8	+ 0.7
1898...	40.9	− 1.8	− 2.2	+ 0.4	− 1.4	29.6	− 2.2	− 3.6	+ 1.4	− 3.7
1899...	45.7	+ 3.0	+ 3.6	− 0.6	+ 3.4	31.2	− 0.6	− 2.5	+ 1.9	− 2.1
1900...	43.0	+ 0.3	+ 0.5	− 0.2	+ 0.7	33.0	+ 1.2	− 0.3	+ 1.5	− 0.3
1901...	38.4	− 4.3	− 3.6	− 0.7	− 3.9	27.7	− 4.1	− 5.0	+ 0.9	− 5.6
1902...	49.8	+ 7.1	+ 7.7	− 0.6	+ 7.5	30.6	− 1.2	− 2.0	+ 0.8	− 2.7
1903...	38.2	− 4.5	− 4.0	− 0.5	− 4.1	25.8	− 6.0	− 8.1	+ 2.1	− 7.5
1904...	41.8	− 0.9	0.0	− 0.9	− 0.5	29.3	− 2.5	− 3.5	+ 1.0	− 4.0
1905...	41.2	− 1.5	− 1.7	+ 0.2	− 1.1	33.6	+ 1.8	+ 0.4	+ 1.4	+ 0.3
1906...	41.9	− 0.8	0.0	− 0.8	− 0.4	33.5	+ 1.7	0.0	+ 1.7	+ 0.2
1907...	39.8	− 2.9	− 1.0	− 1.9	− 2.5	34.3	+ 2.5	+ 2.0	+ 0.5	+ 1.0
1908...	43.3	+ 0.6	+ 2.0	− 1.4	+ 1.0	35.2	+ 3.4	+ 1.7	+ 1.7	+ 1.9
Means	42.7	.....	+18.1	+ 1.9	+19.0	31.8	.....	+ 6.2	+19.4	+ 7.0
	.....	.....	−12.5	− 7.6	−13.9	.....	.....	−25.0	0.0	−26.2
Red.m	42.3	.....	+ 5.6	− 0.4	+ 5.1	33.3	.....	−18.8	+ 1.5	−19.2

WEATHER, FORECASTS, AND WARNINGS FOR THE MONTH.

By Prof. E. B. GARRIOTT, in charge of Forecast Division.

A period of exceptionally warm, dry weather that had continued generally over the United States through March and the first half of April was ended about the middle of the month, when temperature fell below the average for the season over the Plains States and middle and southern Rocky Mountain districts, and general precipitation set in from the Mississippi Valley eastward, except in New England. In southern portions of the Middle Atlantic States and the interior of the South Atlantic States and thence to the middle Missouri Valley the precipitation was heavy. During the first half of the third decade of the month temperature was abnormally low in the central valleys and Lake region, but continued high from the Rockies to the Pacific coast and in the Middle and North Atlantic States. During the 24th and 25th the line of freezing temperature extended almost to the Gulf coast, and snow fell in the interior of the middle and east Gulf and South Atlantic States. Although timely warnings of frost and freezing temperatures were issued for all sections visited by the cool wave great damage was caused by low temperatures throughout the central valleys and the Southern States. In Middle Eastern and Northeastern States damaging temperatures were not experienced. During the period of exceptional cold weather in the central valleys and the Southern States a warm wave advanced from the western and northwestern sections, attended by temperatures above 90° and reached the Atlantic seaboard April 30. With the arrival of this warm wave the two-week period of unsettled, rainy weather in the East ended and the month closed with fair weather and seasonable temperature over the western half of the country.

The general distribution of atmospheric pressure over the Northern Hemisphere during the closing days of March indicated a decided change from the mild, fair weather that had for several weeks prevailed in the United States. In a forecast issued March 27 the statement was made that the rains of the following week would increase in area and be followed by changes to colder weather.

April opened with a barometric disturbances in extreme Northwest and Southwest portions of the United States that, during the succeeding two days, advanced eastward over the Plains States, attended by rains over considerable areas from the Rocky Mountains eastward.

On April 3 the following special forecast was issued:

During the present week the weather over the British Isles and northern and western Europe and adjacent waters will be cool and unsettled. Along the transatlantic steamer routes fog will be prevalent from the Grand Banks westward Tuesday and Wednesday, after which the winds will shift to north west and increase in force. East of the 40th meridian winds will be northerly until about the middle of the week, when they will shift to increasing southerly and then go to northerly in squalls.

In the United States the rains of the week will be more general than those of the past several weeks. During the first half of the week an extensive barometric depression will cross the central valleys, Lake region, and Atlantic seaboard attended by rains that will alleviate prevailing conditions of drought in those regions. The rain area will be followed by a sharp fall in temperature that will carry the frost line to or somewhat below the fortieth parallel. Another disturbance that promises to be attended by general rains will appear on the Pacific coast about Tuesday and advance over the Plains States, central valleys, Lake region, and Atlantic States during the latter half of the week.

By the morning of April 4 the barometric disturbance referred to extended in a trough of low pressure from western Lake Superior to Texas, rains had been general over the eastern half of the country, except in New England and the Southeast, and in the Northwest and middle and northern Rocky Mountain districts rains and snows had been attended by a decided fall in temperature. During the next 24 hours the disturbance drifted slowly eastward over the Mississippi Valley, attended by showers and thunderstorms in the central valleys and Lake region, by rains in the Middle Atlantic and New England States, and followed by a decided fall in temperature in the Plains States and Missouri and Mississippi valleys. On the morning of the 5th the line of freezing temperature was traced from New Mexico to Minnesota. On the 5th (Tuesday) a barometric disturbance appeared on the north Pacific coast and fog prevailed along and off the middle Atlantic and southern New England coasts. During the succeeding 24 hours the center of disturbance moved to estern Ontario and rains that were heavy in localities fell from the middle and upper Mississippi Valley over the Ohio Valley and Lake region. Rains also occurred in the South Atlantic and east Gulf States. Temperature fell decidedly in the central valleys and Lake region with freezing weather from the Dakotas over the upper Mississippi Valley and northwestern Lake region, and killing frost was reported in southeastern Kansas. The north Pacific coast disturbance moved over the northern Rocky Mountain districts and rain fell in the north Pacific coast States. Fog was again reported along the north Atlantic coast and doubtless extended in areas thence to the Grand Banks. By Thursday morning the storm center had advanced over New England, precipitation had extended over the Middle Atlantic and New England States. with snow in the more northern districts, and the line of freezing temperature crossed the Lake region with frost in the Ohio Valley and Tennessee. The occurrence of frost in the regions named was forecast the morning of the 6th. Under the influence of the disturbance from the north Pacific coast, that had advanced over the Plains States, temperature had risen from the Mississippi River to the Rocky Mountains.

As indicated in the special forecast of the 3d instant the weather along the transatlantic steamship tracks and western Europe had become unsettled and a disturbance from the American Continent had reached mid-ocean with another disturbance moving eastward off the north Atlantic coast. With high barometric pressure over the Iceland area and low barometer in the Azores regions the advance of storms over the Atlantic in middle latitudes was indicated and on the morning of the 7th the following was cabled to Lloyds, London:

Stormy weather along transatlantic tracks and western European coasts next several days.

On the morning of April 8 the northeastern disturbance persisted on the New England coast, and snow and rain continued in New England and the interior of New York. The line of freezing temperature had extended over the mountain districts of the Middle Atlantic States, and frost occurred as far south as Tennessee and Virginia. The northwestern disturbance existed as a trough of low pressure that extended from western Lake Superior to Texas, and temperature had risen in the central valleys. The mid-Atlantic storm had increased in intensity, with barometer 29.36 inches and wind velocity 64 miles an hour from the southwest at Horta, Azores. The week closed with temperature above the average for the season generally over the interior of the United States and showers in Northeastern, Southwestern, and extreme Northwestern States.

The following special bulletin and forecast was issued Sunday, April 10:

A storm of marked intensity extends from the Azores northward over the transatlantic steamer routes. Over the British Isles and west-central continental Europe the weather is fair and cool. Over the balance of Europe low barometric pressure is attended by unsettled weather. Temperature will be higher generally over Europe during the present week with rain in northern, northwestern, and eastern and fair weather in south-central countries. Over the Siberian area the weather will be fair over eastern and unsettled in western portions. There are at present no signs of storms of

marked intensity in middle and southern latitudes of the Pacific Ocean. In northern latitudes of the Pacific the storms promise to be of moderate strength only. Temperature is above normal generally throughout the United States and fair weather prevails, except in the North Pacific States and Texas.

During the present week temperature will average above normal generally in the United States and from the central valleys eastward the week, as a whole, will be unusually warm. During the first 3 days of the week a disturbance attended by scattered showers will advance from the central valleys over the Atlantic States. A disturbance that will occupy the Pacific States Monday will advance over the Plains States and central valleys during the middle days of the week and reach the Atlantic coast near the close of the week. The latter disturbance should be attended by an extensive area of showers and followed by a sharp fall in temperature that will produce frost in the more northern States.

During the 11th and 12th the mid-Atlantic storm advanced over the British Isles and stormy weather set in over northern and western Europe. In the United States a disturbance advanced from the Plains States over the Mississippi Valley, attended by rains from New England southwestward over the Middle Atlantic States and Ohio Valley and Gulf States, and from the upper Mississippi Valley over the Lake region rain or snow preceded clearing, cooler weather. A disturbance, with rain, that occupied the Pacific States Monday moved over the Plateau and Rocky Mountain districts by Tuesday morning. By the 13th the eastern Atlantic storm had deepened with barometer 29.06 inches in the morning at Valentia, Ireland, and stormy weather prevailed over the British Isles, western continental Europe, and the North Sea. The Mississippi Valley disturbance had advanced to the south Atlantic coast with rain from the Ohio Valley and Virginia southward, and the western disturbance had moved over the Plains States, with rains in the Rocky Mountain districts and a marked rise in temperature in the Lake region and the Western States. On this date a barometric depression was noted over the Japan Sea, the barometer rose over the eastern portion of Bering Sea, fell decidedly over southern and eastern Alaska, and an area of high barometer appeared over the North Pacific States. Reports of the 14th showed the center of the European storm near the east coast of Scotland, with reported pressure, 28.96 inches, at Sumburgh Head. The North American disturbance covered the Missouri Valley and Plains States, and was attended by rain, thence eastward over the Mississippi Valley. This disturbance was followed by an area of high barometer that carried the line of freezing temperature over the middle Plateau and middle Rocky Mountain districts. On this date a rapid decrease in pressure was shown over the Siberian area, and the depression noted over the Japan Sea on the 13th had apparently moved northeastward over the Pacific. During the 16th and 17th the north-central American disturbance persisted over the Lake region and upper Mississippi Valley, heavy rains fell from the central valleys over the Middle and South Atlantic and Gulf States and freezing temperature and snow extended over the middle Mississippi Valley.

On the 17th the following special bulletin was issued:

After a week of stormy weather fair weather has set in over the British Isles and west-central and northwestern continental Europe and adjacent waters and storms are not indicated for the European area during the next several days, except on the northwest coasts where a disturbance will appear by the middle of the week. Over the Atlantic Ocean the weather will be fair and settled over southern latitudes and moderate gales will be encountered along and north of the transatlantic steamer routes. Over eastern Siberia and along the middle-eastern and northern Asiatic coasts marked barometric changes will be attended by unsettled weather. Over the Pacific Ocean fair weather will prevail in southern latitudes and disturbances of moderate strength will be encountered along the great circle sailing route.

In the United States the week will open with abnormally low temperature from the Rocky Mountains eastward, with frost as far south as the lower Ohio Valley and Tennessee and snow in the Lake region. The first half of the week will be fair in the Southern States and unsettled from the north-central valleys eastward. A barometric depression that will appear over the extreme Western States Monday will advance over the Rockies and Plains States Tuesday, cross the central valleys and Lake region Wednesday and Thursday, and reach the Atlantic seaboard near the close of the week. This disturbance will be preceded by rising temperature and attended by showers that will extend southward over the Gulf and South Atlantic States.

The bulletin also contained the following note regarding frost and frost protection:

The prevailing mild weather of the present season has resulted in trees making an unusual advance toward fruition and thereby increasing the likelihood of damage to the fruit crop. With proper precautionary measures damage by frost may, as a rule, be averted and damage by freezes minimized. There is no section of the country where fruit crops in their seasons of bloom and ripening are not subject to damage by frost, and there is no section in which successful growers have not been amply repaid for labor and material expended to save their crops from injury or destruction by frosts and freezes. In 1909 $3,000,000 to $4,000,000 worth of fruit was saved in Colorado alone by orchard heating, crude oil burned in pots being the fuel mostly employed. Weather Bureau advices regarding impending frost should prompt the grower to get his firing material ready for use in the orchard, and the material and apparatus should measure up to the necessity of keeping the temperature about the trees above freezing until the temperature of the surrounding air again rises above the danger point.

Precipitation continued in middle and northern districts east of the Mississippi during the 18th and 19th and on the morning of the latter date snow and freezing temperatures were reported in the Ohio Valley. Over the extreme West pressure fell and a general rise in temperature occurred as far east as the Mississippi Valley. The rains of the middle days of the month in the central valleys and later in the Atlantic States relieved the severe drought that had prevailed during March and the early part of April. Unsettled weather and rains continued in the Middle Eastern States until the 21st, and the frost line extended over Tennessee and adjoining portions of the Gulf States. During the passage of this cool wave serious injury was caused to fruit in middle sections of the country from the Plateau region eastward over the central valleys. Reports from Salt Lake City, Utah, show that, while great damage to fruit was caused in that section, the loss was comparatively light in large orchards where smudge fires were burning. A barometric depression that appeared over the extreme West during the opening days of the week advanced over the central valleys and western lakes Thursday and Friday and moved thence slowly eastward over the eastern Lake region, Ohio Valley, and Middle and South Atlantic States during Saturday and Sunday, attended by general precipitation from the middle and upper Mississippi Valley eastward. In the western Lake region and middle and upper Mississippi and middle and lower Ohio valleys the precipitation was partly in the form of snow. The disturbance was followed by a decided fall in temperature that carried the line of freezing weather and snow as far south as the interior of the east Gulf States.

The following special forecast was issued April 24:

A disturbance of marked intensity covers northwestern Europe with gales on the British coasts and over the North Sea. Over southern and eastern continental Europe and generally over the Asiatic area the weather is fair. Stormy weather is indicated for Europe, except in southern portions, during the next several days. Over the British Isles west to northwest gales will diminish in force and rain will be followed by clearing, colder weather by the middle of the week. Over the Atlantic east of the 30th meridian northwest gales will be followed by winds becoming light and variable. Between the 30th and 50th meridians fair weather will continue during the next two or three days. West of the 50th meridian the weather will continue unsettled with squalls for several days. Fair weather is indicated for middle and southern latitudes of the Pacific. North of the 40th parallel the weather promises to be settled, except off the American coasts where the barometric disturbances will appear about Monday and Friday.

In the United States the week will open with low temperature from the Mississippi Valley to the Atlantic coast and abnormally high temperature from the Plains States over the Rocky Mountain districts. From the Lake region and Ohio Valley over the Middle Atlantic and New England States there will be precipitation in the form of rain or snow. In the Southern States fair weather, with rising temperature, will continue until about the close of the week, when showers will occur in the Gulf States. Over Middle Eastern and Northeastern States and thence over the Ohio Valley and Lake region temperature will be abnormally high during the latter half of the week, with fair weather during the middle days of the week and showers Friday and Saturday.

Following the low temperature of the opening of the week over the eastern half of the country, with snow in the interior

of the Gulf States and frost to the northern Florida line temperature rose in the Southern States and fair weather set in Monday. In the Northwest temperature rose above 90° and reached a maximum of 94° at Havre, Mont., Tuesday. In middle-eastern and northeastern districts unsettled weather continued until the 27th. On that date an area of high barometer that had persistently occupied the western Atlantic began to give way, and by the morning of the 28th the barometric depression that had covered the eastern portion of the United States for about 10 days passed over the Atlantic, and a period of precipitation that began on the 16th ended. The western warm wave extended during the 27th over the Plains States and showers occurred in the middle and northern Plateau and northern Rocky Mountain districts and southern California. A barometric depression that appeared on the north Pacific coast on the 25th and advanced thence over the northern Rockies during the next two days, appeared on the morning of the 28th as an extensive disturbance that covered the Plains States and Rocky Mountain and Plateau regions. During the 28th the western warm wave advanced over the Missouri and Mississippi valleys with a reported maximum of 98° at Sioux City, Iowa, and showers over the middle-west and the eastern Lake region. Moving eastward over the Lake region by the night of the 29th the western disturbance advanced over the St. Lawrence Valley during the 30th, attended by showers from the Great Lakes over the Middle Atlantic and New England States. During the 29th temperatures rose above 90° in the Mississippi Valley, and on the 30th the highest temperatures of the season were registered in portions of the Middle Atlantic States with a reported maximum of 92° at Washington, D. C.

Average temperatures and departures from the normal.

Districts.	Number of stations.	Average temperatures for the current month.	Departures for the current month.	Accumulated departures since January 1.	Average departures since January 1.
		°	°	°	°
New England	12	48.2	+ 4.6	+14.4	+ 3.8
Middle Atlantic	15	54.6	+ 4.1	+13.0	+ 3.2
South Atlantic	10	62.9	+ 1.6	+ 5.8	+ 1.4
Florida Peninsula*	8	69.1	− 1.1	− 1.1	− 0.3
East Gulf	11	63.6	− 1.1	+ 3.3	+ 0.8
West Gulf	10	64.7	− 0.8	+ 5.8	+ 1.4
Ohio Valley and Tennessee	13	55.4	+ 0.4	+ 8.0	+ 2.0
Lower Lakes	10	48.7	+ 4.0	+12.7	+ 3.2
Upper Lakes	12	45.1	+ 4.7	+17.2	+ 4.3
North Dakota*	9	47.4	+ 6.7	+26.1	+ 6.5
Upper Mississippi Valley	14	52.6	+ 2.2	+14.5	+ 3.6
Missouri Valley	12	54.1	+ 3.7	+20.9	+ 5.2
Northern slope	9	50.2	+ 7.4	+19.1	+ 4.8
Middle slope	6	56.5	+ 2.8	+17.1	+ 4.3
Southern slope*	8	62.6	+ 1.0	+ 9.5	+ 2.4
Southern Plateau*	11	59.6	+ 2.4	+ 7.3	+ 1.8
Middle Plateau*	10	51.1	+ 3.9	+ 4.8	+ 1.2
Northern Plateau*	10	52.7	+ 5.2	+ 7.7	+ 1.9
North Pacific	7	48.9	+ 0.5	+ 1.2	+ 0.3
Middle Pacific	5	57.9	+ 2.5	+ 0.2	0.0
South Pacific	4	62.2	+ 4.2	+ 6.2	+ 1.6

*Regular Weather Bureau and selected cooperative stations.

Average relative humidity and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England	76	+ 3	Missouri Valley	55	−10
Middle Atlantic	70	+ 3	Northern slope	54	− 4
South Atlantic	70	− 2	Middle slope	50	− 7
Florida Peninsula	68	− 6	Southern slope	47	− 8
East Gulf	66	− 4	Southern Plateau	38	+ 8
West Gulf	67	− 5	Middle Plateau	42	− 3
Ohio Valley and Tennessee	66	+ 1	Northern Plateau	51	− 6
Lower Lakes	72	+ 2	North Pacific	77	+ 6
Upper Lakes	76	+ 3	Middle Pacific	71	− 1
North Dakota	63	− 5	South Pacific	66	− 2
Upper Mississippi Valley	68	0			

Average precipitation and departures from the normal.

Districts.	Number of stations.	Average.		Departure.	
		Current month.	Percentage of normal.	Current month.	Accumulated since Jan. 1.
		Inches.		Inches.	Inches.
New England	11	2.69	87	− 0.4	− 0.8
Middle Atlantic	15	4.64	153	+ 1.6	− 0.8
South Atlantic	11	1.73	50	− 1.7	− 6.5
Florida Peninsula*	8	0.96	41	− 1.4	− 4.0
East Gulf	11	2.40	60	− 1.6	− 7.2
West Gulf	10	2.74	77	− 0.8	− 4.1
Ohio Valley and Tennessee	13	3.62	100	0.0	− 1.5
Lower Lakes	10	3.48	146	+ 1.1	+ 1.3
Upper Lakes	12	3.28	144	+ 1.0	− 1.5
North Dakota*	9	1.61	100	0.0	− 0.6
Upper Mississippi Valley	15	2.91	100	0.0	− 2.6
Missouri Valley	12	1.15	39	− 1.8	− 3.2
Northern slope	9	0.88	56	− 0.7	− 0.8
Middle slope	6	1.43	70	− 0.6	− 2.3
Southern slope*	8	2.20	96	− 0.1	− 2.2
Southern Plateau*	11	0.47	82	− 0.1	− 1.3
Middle Plateau*	11	0.42	34	− 0.8	− 3.0
Northern Plateau*	10	1.23	64	− 0.7	− 1.7
North Pacific	7	2.85	88	− 0.4	− 1.7
Middle Pacific	7	0.39	19	− 1.7	− 4.7
South Pacific	4	0.22	22	− 0.8	− 4.3

*Regular Weather Bureau and selected cooperative stations.

Maximum wind velocities.

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
Buffalo, N. Y.	30	52	sw.	Mount Weather, Va.	9	52	nw.
Burlington, Vt.	30	56	s.	North Head, Wash.	2	52	w.
Cairo, Ill.	5	51	sw.	Do.	7	58	se.
Do.	14	54	sw.	Do.	12	54	se.
Chattanooga, Tenn.	15	55	nw.	North Platte, Nebr.	21	52	nw.
Cheyenne, Wyo.	16	50	nw.	Oklahoma, Okla.	13	67	w.
Denver, Colo.	14	52	ne.	Pensacola, Fla.	15	50	se.
Detroit, Mich.	5	52	sw.	Do.	16	54	s.
Devils Lake, N. Dak.	17	50	n.	Do.	24	56	sw.
Dodge City, Kans.	13	51	se.	Point Reyes Light, Cal.	6	50	nw.
Erie, Pa.	17	52	se.	Do.	10	62	s.
Fort Smith, Ark.	14	56	sw.	Do.	12	74	nw.
Green Bay, Wis.	23	56	n.	Do.	13	79	nw.
Kansas City, Mo.	23	56	nw.	Do.	14	57	nw.
Lewiston, Idaho	5	52	w.	Do.	20	54	nw.
Lincoln, Nebr.	23	56	n.	Do.	25	52	nw.
Memphis, Tenn.	15	52	sw.	Do.	26	60	nw.
Minneapolis, Minn.	23	52	n.	Salt Lake City, Utah	2	60	n.
Mount Tamalpais, Cal.	1	58	nw.	Sheridan, Wyo.	3	50	nw.
Do.	12	54	nw.	Sioux City, Iowa	23	65	n.
Do.	13	58	nw.	Southeast Farallon, Cal.	12	56	nw.
Do.	14	57	nw.	Do.	13	54	n.
Do.	25	67	nw.	Toledo, Ohio	5	56	sw.
Do.	28	72	nw.	Do.	16	50	sw.
Do.	29	58	nw.	Tonopah, Nev.	3	56	nw.
Do.	30	62	nw.	Wichita, Kans.	13	54	se.
Mount Weather, Va.	6	58	w.	Williston, N. Dak.	3	50	n.
Do.	7	54	nw.				

Average cloudiness and departures from the normal.

Districts.	Average.	Departure from the normal.	Districts.	Average.	Departure from the normal.
New England	5.9	+ 0.4	Missouri Valley	4.6	− 1.0
Middle Atlantic	5.4	+ 0.2	Northern slope	4.4	− 0.7
South Atlantic	4.3	− 0.3	Middle slope	4.0	− 0.6
Florida Peninsula	3.2	− 0.6	Southern slope	3.4	− 1.3
East Gulf	4.6	− 0.3	Southern Plateau	2.7	− 0.1
West Gulf	4.2	− 0.9	Middle Plateau	4.0	− 0.5
Ohio Valley and Tennessee	6.0	+ 0.7	Northern Plateau	5.4	+ 0 2
Lower Lakes	5.9	+ 0.2	North Pacific	6.1	− 0.1
Upper Lakes	6.0	+ 0.5	Middle Pacific	4.3	− 0.1
North Dakota	4.2	− 1.1	South Pacific	3.4	− 0.6
Upper Mississippi Valley	5.6	+ 0.4			

RIVERS AND FLOODS.

By Prof. H. C. FRANKENFIELD, in charge River and Flood Division.

The rivers were unusually quiet for the month of April, although the precipitation was sufficient to have caused floods in many of the rivers under ordinary circumstances. As it happened, the early disappearance of the winter snows from the watersheds of the northern rivers, the general absence of rain during the month of March following, and the freedom from severe cold combined to render the soil dry and soft, so that a much larger percentage than usual of the copious April rains was directly absorbed, and the rivers, as a rule, exhibited a falling tendency.

There were, however, several sharp rises during the early portion of the second week of the month in the rivers of Texas and southwestern Arkansas, including that portion of the Red in the latter vicinity. These rises were due to heavy local rains and, although advisory warnings of their coming were issued, they were not of sufficient magnitude to cause trouble beyond that incident to the temporary removal of cattle and portable property.

The prolonged rain period that prevailed over the Atlantic States during the latter half of the month was responsible for some decided rises in the rivers of the Atlantic States, but no damage of consequence resulted, except along some of the streams of the State of North Carolina, where the losses were about $50,000, chiefly along the Tar River and its tributaries. Warnings were issued in ample time and property to the value of $40,000 was reported as saved. In the North Atlantic States no damage was done except locally along some of the smaller streams of western New York.

The rivers of the Pacific system were unusually low owing to the early disappearance of the snows and the absence of heavy rains. The annual rise of the Columbia River began about the middle of the month.

Hydrographs for typical points on several principal rivers are shown on Chart I. The stations selected for charting are Keokuk, St. Louis, Memphis, Vicksburg, and New Orleans, on the Mississippi; Cincinnati and Cairo, on the Ohio; Nashville, on the Cumberland; Johnsonville, on the Tennessee; Kansas City, on the Missouri; Little Rock, on the Arkansas; and Shreveport, on the Red.

SPECIAL PAPERS ON GENERAL METEOROLOGY.

RECENT PAPERS BEARING ON METEOROLOGY AND SEISMOLOGY.

C. FITZHUGH TALMAN, Librarian.

The subjoined titles have been selected from the contents of the periodicals and serials recently received in the Library of the Weather Bureau. The titles selected are of papers or other communications bearing on meteorology or cognate branches of science. This is not a complete index of the meteorological contents of all the journals from which it has been compiled; it shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau. Unsigned articles are indicated by a ——.

Aeronautics. New York. v. 6. June, 1910.

Willard, Charles F. Flying and humidity. p. 195. [Author thinks humidity affects the altitude attainable in artificial flight.]

American geographical society. Bulletin. New York. v. 42. April, 1910.

Arctowski, Henryk. Studies on climate and crops. 1. Variations in the distribution of atmospheric pressure in North America. p. 270–282.

Engineering news. New York. v. 63. 1910.

—— Flood losses in Missouri. p. 531. (May 5.)

Roberts, Thomas P. Comments on Prof. Swain's article on floods and forests. p. 595–596. (May 19.)

Nature. London. v. 83. 1910.

Cook, J. Centre of gravity of annual rainfall. p. 248–249. (April 28.) [With reply by A. Watt.]

—— Halley's comet and meteorology. Proposed observations during progress through the tail of Halley's comet. p. 320–322. (May 12.)

Chree, C[harles]. Magnetic storms. p. 354–358. (May 19.) [From a discourse delivered at the Royal institution on Friday, March 4, by Dr. C. Chree, F.R.S., Superintendent Observatory department, National physical observatory.]

London, Edinburgh and Dublin philosophical magazine. London. 6 series. v. 19. May, 1910.

Eve, A. S. The effect of dust and smoke on the ionization of air. p. 657–673.

Simpson, George C. Earth-air electric currents. p. 715–725.

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Brigham, Alfred Perry. Scenery, soil and the atmosphere. p. 570–580.

Royal society. Proceedings. London. ser. A. v. 83. 1910.

Sewall, C. J. T. The extinction of sound in a viscous atmosphere by small obstacles of cylindrical and spherical form. p. 547–548.

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Howard, A. G. The rainfall of South Africa. p. 363–390.

Sutton, J. R. Evaporation in a current of air. p. 417–427.

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Bastin, Edson S. Evidences of paleobotany as to geological climate. p. 760. [Abstract.]

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Boyer, Jacques. The new Eiffel photographic heliograph. p. 393. (May 14.) [Form of photographic sunshine recorder. Illustrated.]

Boyer, Jacques. Eiffel's recent experiments on the resistance of the air. p. 437–438. (May 28.)

Michaud, Gustave. The Cartago earthquake. p. 440–441. (May 28.) [Illustrated.]

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Hauet, Gaston. Les taches du soleil et leur influence sur le globe terrestre. p. 156–167.

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Bounhiol, J. P. Sur le régime thermique de la Méditerranée litorale algérienne. p. 1197–1199. (9 mai.)

Strohl, J. Le poids relatif du coeur et l'effet des grandes altitudes. Étude comparative sur deux espèces de Lagopèdes habitant, l'une des Hautes-Alps, l'autre les plaines de la Laponie. p. 1257–1260. (17 mai.)

Nature. Paris. 38 année. 21 mai 1910.

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Annalen der Hydrographie und maritimen Meteorologie. Berlin. 38. Jahrgang. Mai. 1910.

Köppen, W[ladimir]. Aufstiege von Pilotballons auf deutschen Handelsschiffen in den Jahren 1906 bis 1908. p. 201–217.

Aus dem Archiv der deutschen Seewarte. Hamburg. 32. Jahrgang. 1909.

Grossmann, L. Die Stürme und die Sturmwarnungen an der deutschen Küste in den Jahren 1896 bis 1905. p. 3–47.

Himmel und Erde. Berlin. Jahrgang 22. Mai 1910.

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Rykachev, M., jun. Beobachtungen in den verschiedenen Schichten der Atmosphäre, angestellt auf der Seefahrt von St. Petersburg nach Odessa am Bord des russischen Dampfers "Neptun." p. 145–154.

Hann, J[ulius]. Wilhelm Meinardus: Die meteorologischen Ergebnisse der deutschen Südpolar-Expedition (Winterstation des "Gauss") 1901 bis 1903. p. 155–161.

Defant, A. Zur Theorie der Berg- und Talwinde. p. 161–168.

Wagner, A. Zur Genauigkeit der Höhenangaben sehr hoher Ballonsondeaufstiege. p. 170–172.

Schreiber, Paul. Das Wolkenproblem. p. 172–175.

Strub, W. Über Mangel des Campbell-Stokesschen Sonnenscheinautographen. p. 175–178.

Hann, J[ulius]. P. Wilski über das Klima der Insel Thera. p. 178–182.

—— Sv. Arrhenius über die physikalischen Grundlagen der Kohlensäuretheorie der Klimaänderungen. p. 182–183.

Tetens, Otto & Assmann, [Richard A.]. Lindenberg, Verwendung seines täglichen Beobachtungsmateriales durch Trabert. p. 183–186. [Abstracts of three papers by Trabert.]

Peppler, W. Guilbert, Gabriel: Nouvelle méthode de prévision du temps. p. 189–191.

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Marek, Richard. Beiträge zur Klimatographie der oberen Waldgrenze in den Ostalpen. p. 63–69.

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B., O. Ein neues Verfahren zur Luftverbesserung durch Ozon. p. 489–490.

Sonnblick Verein. Jahresbericht. Wien. 18. Jahrgang. 1909.

Obermayer, A. von. Josef Maria Pernter. p. 3–5. [With portrait.]

—— Die Errichtung eines Observatoriums auf dem Augustin Mallay vor sechzig Jahren durch John Allen Broun. p. 17–22.

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Lindemann, [Carl]. Mittlere Monats- und Jahressummen des als Schnee gemessenen Niederschlags und ihr Verhältnis zur gesamten Niederschlagsmenge. p. 73–81.

Dreis, J. Wolkenbeobachtungen. p. 85-89.

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Peppler, W. Ein Schneeberichtsdienst für den Wintersport. p. 93–95.

Polis, P[eter]. Wetterdienst für Luftschiffahrt an dem meteorologischen Observatorium und der öffentlichen Wetterdienststelle zu Aachen. p. 93–95.

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Negro, C. Über den täglichen und jährlichen Gang der elektrischen Zerstreuung in der Atmosphäre. p. 405–407.

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—— El idioma oficial en la meteorologia. p. 119–125.

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Gorczynski, Ladislao. Sul valore della "costante solare" secondo le misure prese a Ursynova (Polonia) nell'estate del 1909. p. 59–66.

RECENT ADDITIONS TO THE WEATHER BUREAU LIBRARY.

C. FITZHUGH TALMAN, Librarian.

The following have been selected from among the titles of books recently received, as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies. Most of them can be lent for a limited time to officials and employees who make application for them. Anonymous publications are indicated by a ——.

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Die physikalischen Grundlagen der Kohlensäuretheorie der Klimaveränderungen. (Separat-Abdruck aus dem Centralblatt f. Min. etc. Jahrg. 1909. no. 16. p. 481–491.)

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Figurovskii, I. V.
Essai d'investigation sur les climats du Caucase. [Russian text.] St. Petersburg. 1910. p. 450–456. 4°. (Imp. acad. sc.)

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Oceanographische en meteorologische waarnemingen bij Kaap Guardafui. Utrecht. 33 charts. f°. 1909.

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Protokoly pervago meteorologicheskago s"iezda pri Imperatorskoi akademii nauk, 24–31 ianvaria 1900 g. [Russian.] Sanktpeterburg. 1900. v. p. 4°. [Proctocol of the first meteorological congress under the Imperial academy of sciences.]

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Telegraphic code and instructions for the use of the Indian meteorological department during stormy and suspicious weather. Calcutta. 1909 xiv, 44 p. 8°.

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Kodaikanal and Madras observatories.
Annual report. 1909. Madras. 1910. 25 p. f°.

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Sur les relations du gradient barométrique avec le vent et avec quelques autres elements météorologiques à Ö-Gyalla et à Hornsrev. (Thèse.) Upsala. 1910. 59 p. 4°.

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Unser Wetter und seine Vorherbestimmung. Münster. 1909. 164 p. 12°.

Lau, Erich.
Beiträge zur Kenntnis der Zusammensetzung der im Ackerboden befindlichen Luft. Rostock. 1906. 34 p. 8°. (Inaug.-diss. Rostock.)

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Annual report. 1909. Part 1. Meteorological observations in Osaka, 1909. Osaka. 1909. n. p. 4°.

Philippine Islands. Weather bureau.
Catalogue of violent and destructive earthquakes in the Philippines, with an appendix, earthquakes in the Marianas islands 1599–1909. Manila. 1910. 27 p. 4°.

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Strachan, Richard.
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CONDENSED CLIMATOLOGICAL SUMMARY.

In the following table are given, for the various sections of the Climatological Service of the Weather Bureau, the average temperature and rainfall, the stations reporting the highest and lowest temperatures with dates of occurrence, the stations reporting the greatest and least monthly precipitation, and other data, as indicated by the several headings.

The mean temperatures for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperature and precipitation are based only on records from stations that have ten or more years of observations. Of course the number of such records is smaller than the total number of stations.

Temperature and precipitation by sections, April, 1910.

Section.	Temperature—in degrees Fahrenheit.								Precipitation—in inches and hundredths.					
	Section average.	Departure from the normal.	Monthly extremes.						Section average.	Departure from the normal.	Greatest monthly.		Least monthly.	
			Station.	Highest.	Date.	Station.	Lowest.	Date.			Station.	Amount.	Station.	Amount.
Alabama	61.9	− 1.1	Lucy	91	3†	Madison	26	25	3.42	− 0.90	Greenville	7.53	Tuskegee	1.15
Arizona	63.8	+ 2.1	4 stations	110	24†	Keams Canyon	15	4	0.25	− 0.21	Keams Canyon	1.50	4 stations	0.00
Arkansas	59.8	− 1.4	2 stations	90	31	Mt. Nebo	22	25	5.14	+ 0.82	Pine Bluff	8.74	Eureka Springs	2.05
California	59.8	+ 3.6	Lemon Cove	110	24	Macdoel	9	4	0.62	− 1.40	Monumental	3.49	24 stations	0.00
Colorado	45.9	+ 2.7	Sedgwick	98	27	Whitepine	− 5	4	1.24	− 0.55	Fairview	3.98	Canon City	T.
Florida	68.0	− 1.2	2 stations	95	15†	Fenholloway	31	26	1.29	− 1.18	De Funiak Springs	6.30	Newport	T.
Georgia	62.3	− 0.8	4 stations	94	3†	2 stations	29	24	3.23	− 0.31	Cuthbert	7.03	Valdosta	0.77
Hawaii														
Idaho	50.4	+ 4.4	Guffey	100	25	McCall	7	4	1.41	− 0.38	Grand Forks	4.47	2 stations	0.06
Illinois	53.4	+ 1.7	La Harpe	92	29	Oregon	12	24	3.46	+ 0.18	Cairo	6.78	Urbana	1.57
Indiana	53.0	+ 1.5	Collegeville	96	29	Judyville	21	24	3.45	+ 0.10	Rome	6.07	Farmersburg	1.60
Iowa	52.5	+ 4.0	Inwood	99	28	Rock Rapids	15	5	1.48	− 1.35	Burlington	4.86	Webster City	0.10
Kansas	57.3	+ 2.5	Densmore	102	28	Coolidge	17	1	1.18	− 1.48	Pleasanton	3.35	2 stations	0.10
Kentucky	55.4	− 0.6	Bowling Green	88	30	Shelby City	23	24	5.14	+ 1.49	Blandville	8.06	Pikeville	2.06
Louisiana	65.9	− 1.0	Lafayette	93	7	Dodson	28	25	2.05	− 2.60	Plain Dealing	5.69	Hammond	0.15
Maryland and Delaware	56.5	+ 4.4	2 stations	92	30	Woodstock, Md.	25	14	5.53	+ 2.16	Laurel, Md.	10.37	Solomons, Md.	2.74
Michigan	46.6	− 4.3	Detour	85	14	2 stations	12	9†	2.95	+ 0.89	Bay City	6.35	Gaylord	0.25
Minnesota	48.0	+ 5.5	2 stations	95	28	2 stations	11	10†	1.54	− 0.73	Osakis	4.06	Lake Crystal	0.32
Mississippi	62.9	− 1.4	Yazoo City	93	15	Shoccoe	28	25	3.92	− 0.88	Hernando	8.46	McNeill	0.42
Missouri	54.8	− 0.2	Kansas City	95	29	Farmington	21	25	3.51	− 0.36	Goodland	6.66	Hollister	1.30
Montana	50.4	+ 7.8	2 stations	94	26	Grayling	2	4	1.15	− 0.17	Mill Creek	6.17	2 stations	T.
Nebraska	53.2	+ 3.9	Ewing	106	28	Gothenburg	13	23	0.63	− 1.70	Bridgeport	2.10	4 stations	T.
Nevada	51.8	+ 4.8	3 stations	95	24	Tecoma	8	5	0.24	− 0.49	North Fork	1.45	5 stations	0.00
New England*	48.7	+ 5.1	Southington, Conn.	84	5	Patten, Me.	12	12	3.07	+ 0.04	Patten, Me.	5.35	Jacksonville, Vt.	0.62
New Jersey	53.5	+ 4.4	Bridgeton	88	30	Layton	20	13	5.34	+ 1.78	Charlotteburg	7.56	Canton	3.43
New Mexico	53.4	+ 1.5	Carlsbad	97	29	Fort Union	1	16	0.61	+ 0.10	2 stations	2.70	2 stations	0.00
New York	48.6	+ 5.0	Elmira	87	6	Gabriels	12	11	3.58	+ 1.06	West Point	9.45	Tupper Lake	0.46
North Carolina	59.6	+ 2.3	3 stations	93	4†	Highlands	22	24	3.27	− 0.28	Weldon	7.88	Hatteras	0.67
North Dakota	48.0	+ 6.6	Amenia	96	27	Jamestown	4	17	1.30	− 0.01	Medora	3.45	Hettinger	0.07
Ohio	51.5	+ 2.2	2 stations	88	5†	Bladensburg	19	8	3.49	+ 0.60	Fremont	7.52	New Alexandria	1.60
Oklahoma	61.2	+ 1.2	Mutual	100	29	Hurley	23	4	2.57	− 0.53	Blackburn	6.43	Cloud Chief	T.
Oregon	52.1	+ 3.2	4 stations	95	24†	Range	10	11	1.77	− 0.55	Trask	7.83	Lakeview	0.00
Pennsylvania	52.6	+ 4.6	Marion	89	30	Pocono Lake	18	13	5.07	+ 1.80	Hamburg	8.50	Pittsburg	2.21
Porto Rico	74.5	− 1.3	Canóvanas	94	28	2 stations	52	2†	3.55	− 0.93	Añasco	8.09	Santa Isabel	0.12
South Carolina	63.4	+ 1.7	3 stations	95	1†	Aiken	32	26	1.71	− 1.63	Beaufort	3.38	Georgetown	0.08
South Dakota	51.3	+ 5.8	2 stations	100	28	Daviston	12	23	1.40	− 0.86	Dumont	4.67	Hopewell	0.25
Tennessee	57.7	− 0.5	3 stations	88	3†	Rugby	24	24	4.89	+ 0.53	Waynesboro	9.00	Bluff City	2.82
Texas	65.9	− 0.7	Zapata	103	15	Dalhart	23	5	2.59	− 0.20	Crockett	7.58	Marfa	0.00
Utah	50.9	+ 3.9	Green River	95	26	Lon	7	4	0.39	− 1.02	Basin	1.64	10 stations	0.00
Virginia	56.4	+ 3.1	Lincoln	95	30	Dale Enterprise	24	8	4.68	+ 1.40	Clarksville	9.68	Cape Henry	1.59
Washington	51.2	+ 1.9	4 stations	95	18†	Laurier	17	2	1.97	− 0.16	Forks	6.92	2 stations	0.00
West Virginia	53.2	+ 2.6	2 stations	91	30	Central Station	16	8	3.39	+ 0.05	Beckley	9.07	Nuttallburg	1.63
Wisconsin	47.8	+ 4.0	La Crosse	93	29	Long Lake	11	12	3.36	+ 1.16	Florence	2.33	Osceola	0.69
Wyoming	46.1	+ 5.9	Fort Laramie	92	28	Grand Canyon Y. Pk.	− 7	4	0.23	− 0.65	Dome Lake	3.10	Shoshone Dam	T.

*Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. †Other dates also.

TABLE I.—*Climatological data for U. S. Weather Bureau stations, April, 1910.*

Stations.	Elevation of instruments.			Pressure, in inches.			Temperature of the air, in degrees Fahrenheit.										Precipitation, in inches.			Wind.					Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness during daylight, tenths.	Total snowfall.
	Barometer above sea level, feet.	Thermometers above ground.	Anemometer above ground.	Actual, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hrs.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.	Mean wet thermometer.	Mean temperature of the dew-point.	Mean relative humidity, per cent.	Total.	Departure from normal.	Days with .01, or more.	Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.				
New England.							43.2	+ 4.6										76	2.69	− 0.4								5.9	
Eastport	76	67	85	29.88	29.97	+ .04	42.0	+ 3.7	55	5	48	26	29	36	21	39	35	81	3.42	+ 0.5	15	7,700	s.	38	se.	30	8	8	14	6.8	1.7
Greenville	1,070	6	....	28.79	29.97		42.5		67	5	50	21	29	34	40				2.51		15									0.5
Portland, Me.	103	81	117	29.85	29.97	+ .01	45.8	+ 2.8	68	27	53	30	13	39	27	41	36	75	4.12	+ 1.0	14	6,489	nw.	38	se.	30	12	4	14	5.9	T.
Concord	288	70	79	29.64	29.95	− .04	48.2	+ 4.4	80	6	59	25	17	37	36	....	....	....	3.20	+ 0.4	8	4,465	nw.	25	se.	17	7	9	14	6.2	T.
Burlington	404	11	48	29.51	29.96	− .03	47.2	+ 6.5	74	6	56	26	11	38	28	....	....	....	2.10	+ 0.2	13	8,211	nw.	56	s.	30	6	13	11	6.3	1.8
Northfield	876	16	70	29.01	29.97	− .02	45.4	+ 5.2	78	6	56	22	11	35	35	42	38	76	2.17	+ 0.1	12	6,641	s.	35	s.	17	3	15	12	6.5	T.
Boston	125	115	188	29.82	29.96	− .01	51.6	+ 6.3	78	6	60	35	11	44	28	46	41	72	2.22	− 1.3	7	7,221	nw.	30	nw.	10	7	8	15	6.5	
Nantucket	12	14	90	29.95	29.96	− .01	47.8	+ 3.6	65	25	54	35	17	42	21	44	41	82	2.95	+ 0.3	14	10,855	sw.	42	s.	30	7	15	8	5.5	
Block Island	26	11	46	29.92	29.95	− .03	47.4	+ 3.6	63	15	53	34	13	42	19	45	43	89	1.24	− 2.4	12	11,721	sw.	40	e.	17	14	7	9	4.9	
Narragansett	....	9	....	....	....	....	48.6	+ 4.0	77	15	57	28	11	40	28	....	....	....	1.81	....	9	....	ne.	....	....	....	17	4	9	....	
Providence	160	141	165	29.79	29.96	− .02	50.9	+ 4.3	74	15	60	31	13	41	31	46	41	74	1.64	− 2.1	9	7,731	nw.	34	n.	28	8	12	10	5.6	
Hartford	159	122	140	29.78	29.95	− .04	52.2	+ 5.5	79	5	63	32	17	42	33	45	39	66	3.15	− 0.4	10	6,032	s.	30	nw.	10	9	8	13	6.0	0.2
New Haven	106	116	155	29.83	29.95	− .04	51.5	+ 5.1	73	15	61	34	13	42	32	46	40	67	3.35	− 0.2	12	7,041	se.	35	nw.	10	12	9	9	5.2	T.
Mid. Atlantic States.							54.6	+ 4.1										70	4.64	+ 1.6								5.4	
Albany	97	102	115	29.84	29.95	− .05	51.4	+ 5.6	77	6	61	31	13	42	33	45	40	69	4.19	+ 1.8	14	6,597	nw.	34	s.	30	7	15	8	5.4	T.
Binghamton	871	78	88	28.99	29.93	− .09	49.5	+ 5.1	81	5	60	24	13	39	42	....	....	....	2.09	− 0.2	14	5,218	se.	28	s.	26	9	4	17	6.1	0.2
New York	314	108	350	29.59	29.93	− .07	54.0	+ 5.9	79	30	62	34	8	46	33	47	41	68	4.53	+ 1.2	11	9,169	nw.	44	nw.	10	7	13	10	5.8	
Harrisburg	374	94	104	29.52	29.92	− .10	55.7	+ 5.0	87	30	66	34	7	46	41	47	39	62	4.20	+ 1.7	13	5,457	nw.	32	se.	25	8	13	9	5.5	T.
Philadelphia	117	116	184	29.81	29.94	− .07	57.0	+ 6.2	83	30	66	38	8	48	36	50	44	67	4.76	+ 1.8	12	7,692	sw.	33	se.	18	8	12	10	5.4	T.
Scranton	805	111	119	29.07	29.94	− .07	52.0	+ 4.9	83	5	63	32	13	41	39	46	42	74	3.41	+ 0.8	17	5,634	nc.	28	nw.	10	9	7	14	6.0	T.
Atlantic City	52	37	48	29.89	29.95	− .05	51.2	+ 3.6	67	5	57	36	8	45	21	47	43	78	4.23	+ 1.2	12	6,770	sw.	29	se.	17	10	9	11	5.8	
Cape May	17	9	56	29.94	29.96	− .03	51.8	+ 3.4	68	22	58	37	8	46	24	48	44	80	4.10	+ 1.1	12	6,929	s.	36	e.	17	9	15	6	5.5	
Baltimore	123	100	113	29.80	29.93	− .08	58.2	+ 5.2	92	30	67	40	8	49	36	50	43	63	7.76	+ 4.5	12	5,269	s.	27	ne.	16	11	9	10	5.4	
Washington	112	62	85	29.80	29.92	− .10	57.9	+ 4.8	92	30	69	37	14	47	38	49	42	63	5.89	+ 2.6	12	5,010	s.	34	w.	7	13	9	8	4.6	
Cape Henry	18	9	58	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Lynchburg	681	83	88	29.20	29.94	− .08	57.7	+ 2.1	90	30	69	37	26	48	39	51	46	70	5.87	+ 2.7	10	3,444	nw.	24	nw.	7	8	17	5	5.2	
Mount Weather	1,725	10	54	28.08	29.90	− .12	52.2	+ 3.8	86	30	62	30	8	42	32	45	40	70	3.64	+ 0.6	11	11,875	nw.	58	w.	6	9	8	13	5.5	
Norfolk	91	102	111	29.86	29.96	− .05	60.0	+ 4.0	87	5	70	42	8	50	32	52	47	68	2.46	− 1.3	10	7,395	s.	41	sw.	6	13	10	7	4.4	
Richmond	144	189	197	29.80	29.95	− .07	58.4	+ 1.2	88	30	70	35	8	47	41	....	....	....	8.74	+ 5.3	13	6,137	s.	36	sw.	6	6	20	4	5.2	
Wytheville	2,293	40	47	27.56	29.93	− .10	52.4	+ 0.4	78	30	64	31	19	41	37	46	42	77	3.79	+ 0.1	16	5,352	w.	31	w.	18	8	10	12	5.4	T.
S. Atlantic States.							62.0	+ 1.6										70	1.73	− 1.7								4.3	
Asheville	2,255	53	75	27.61	29.96	− .07	54.8	+ 0.9	82	30	66	31	26	44	39	48	44	76	1.72	− 2.3	10	6,033	nw.	31	se.	17	10	6	14	5.7	T.
Charlotte	773	68	76	29.12	29.96	− .07	61.4	+ 2.2	87	30	72	34	26	51	33	51	43	58	2.34	− 1.1	10	5,513	sw.	30	sw.	18	11	11	8	4.8	
Hatteras	11	12	47	29.94	29.95	− .06	62.3	+ 4.3	74	4	68	48	8	56	21	58	55	82	0.67	− 3.7	6	11,350	sw.	37	s.	18	19	8	3	3.7	
Manteo	....	12	46	....	....	....	60.1	....	87	5	69	39	9	51	....	....	....	....	2.40	− 2.2	6	....	s.	....	....	....	18	5	7	....	
Raleigh	376	103	110	29.54	29.94	− .09	61.0	+ 2.0	88	30	72	36	26	50	31	51	44	60	5.01	+ 1.5	13	6,166	sw.	31	sw.	5	13	10	7	4.7	
Wilmington	78	81	91	29.89	29.97	− .06	63.3	+ 2.9	87	4	73	40	26	54	30	56	51	74	1.61	− 1.2	7	6,765	sw.	29	sw.	19	17	8	5	4.0	
Charleston	48	14	92	29.93	29.98	− .05	65.4	+ 1.6	89	2	74	41	26	57	25	58	53	72	1.00	− 2.0	4	7,894	sw.	30	s.	18	16	10	4	3.5	
Columbia, S. C.	351	41	57	29.58	29.96	− .07	65.6	+ 0.8	91	4	75	34	26	52	32	53	44	57	0.78	− 2.1	6	5,736	sw.	33	sw.	18	8	13	9	5.2	
Augusta	180	89	97	29.78	29.97	− .06	63.4	+ 0.2	89	4	75	36	26	51	37	54	47	62	1.51	− 2.0	7	4,804	sw.	33	w.	16	13	10	7	4.3	
Savannah	65	150	194	29.93	30.00	− .03	65.6	+ 0.9	90	3	76	38	26	55	28	57	53	74	1.37	− 1.6	6	9,344	sw.	33	w.	25	17	8	5	3.8	
Jacksonville	43	96	129	29.97	30.02	− .02	67.9	+ 0.3	88	3	79	42	26	57	28	59	55	73	0.60	− 2.1	6	7,489	sw.	36	nw.	27	16	11	3	3.4	
Florida Peninsula.							71.7	− 1.6										68	0.60	− 1.3								3.2	
Jupiter	28	10	46	30.00	30.02	− .02	70.1	− 2.1	86	18	79	51	26	62	26	64	60	72	0.51	− 2.1	5	7,795	se.	38	se.	18	17	13	0	2.9	
Key West	22	16	53	30.01	30.03	+ .01	74.2	− 1.3	83	13	80	64	22	69	14	67	63	71	0.03	− 1.3	1	7,181	se.	32	nw.	20	14	15	1	3.8	
Sand Key	25	41	71	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
Tampa	35	79	96	30.00	30.04	− .02	69.0	− 1.6	88	15	78	50	26	59	28	62	59	77	1.27	− 0.6	6	5,547	nw.	28	nw.	27	18	10	2	2.9	
East Gulf States.							63.6	− 1.1										68	2.40	− 1.6								4.6	
Atlanta	1,174	190	216	28.75	29.99	− .04	60.0	− 1.1	84	30	69	32	25	51	27	51	44	61	3.15	− 0.5	8	9,142	w.	38	sw.	5	11	5	14	5.8	
Macon	370	78	87	29.60	29.99	− .04	62.4	− 0.7	88	3	74	36	26	50	38	....	....	....	3.46	+ 0.1	7	4,687	sw.	28	s.	12	13	8	9	4.2	T.
Thomasville	273	8	57	29.72	30.02	− .09	64.8	− 1.9	89	3	79	32	26	51	39	55	50	68	1.72	− 1.9	6	4,366	sw.	27	sw.	12	18	8	4	3.6	
Pensacola	56	140	183	29.97	30.03	− .01	65.8	− 1.9	78	9	72	40	25	59	22	....	....	....	1.03	− 2.1	5	10,262	sw.	56	sw.	24	10	14	6	4.4	
Anniston	741	9	57	29.21	30.01	− .02	60.0	− 0.4	85	30	72	30	25	48	39	....	....	....	3.21	− 0.4	10	4,697	n.	25	w.	18	7	8	15	6.3	T.
Birmingham	700	11	48	29.24	30.00	− .02	61.5	− 2.0	83	3	72	33	25	51	33	54	49	70	2.53	− 1.1	5	5,545	nw.	31	nw.	27	5	10	15	6.4	
Mobile	57	98	106	29.95	30.01	− .01	66.7	− 0.7	82	13	76	39	25	58	24	59	53	68	1.54	− 2.8	2	6,581	sw.	31	sw.	5	16	11	3	3.5	
Montgomery	223	100	112	29.75	30.00	− .03	63.6	− 1.6	86	3	75	34	25	52	34	54	48	62	2.66	− 1.6	5	4,794	w.	34	w.	12	13	9	8	4.4	T.
Meridian	375	84	93	29.59	29.99	− .03	62.1	− 2.0	86	14	74	32	25	50	37	54	49	67	2.26	− 2.8	5	4,624	nw.	27	sw.	16	9	12	9	5.3	T.
Vicksburg	247	62	74	29.72	30.00	.00	64.2	− 1.0	85	14	74	34	25	54	30	56	50	65	3.97	− 1.2	6	6,009	sw.	27	nw.	5	12	6	12	4.8	
New Orleans	51	90	121	29.96	30.01	+ .01	68.8	+ 0.9	85	13	77	41	25	60	25	60	54	65	0.90	− 4.0	3	7,313	s.	42	se.	15	23	6	1	2.4	
West Gulf States.							64.7	− 0.8										67	2.74	− 0.8								4.2	
Shreveport	249	77	84	29.72	29.99	+ .02	64.5	− 1.3	86	29	75	34	25	54	31	56	50	65	1.61	− 3.0	8	5,951	nw.	32	sw.	15	15	9	6	4.2	
Bentonville	1,303	11	44	28.57	29.94	− .02	56.3	− 0.6	84	27	67	30	25	46	40	....	....	....	2.56	− 1.3	11	4,863	s.	27	s.	3	12	6	12	5.3	0.2
Fort Smith	457	79	94	29.48	29.96	.00	60.0	− 1.7	86	29	70	33	26	50	39	51	44	62	2.22	− 1.7	9	7,110	e.	56	sw.	14	12	7	11	5.0	T.
Little Rock	357	139	147	29.59	29.97	− .01	60.4	− 2.3	86	29	70	33	26	51	34	54	50	76	5.73	+ 1.2	10	7,616	nw.	37	w.	16	12	5	13	5.3	
Brownsville	57	4	....	....	....	....	73.2	....	94	14	84	46	17	63	42	....	....	....	0.81	....	3	....	s.	....	....	....	....	....	....	....	
Corpus Christi	20	69	77	29.98	30.00	+ .05	70.7	− 0.2	91	14	77	54	17	64	31	64	59	73	2.58	+ 0.8	6	10,836	se.	44	e.	9	14	8	8	4.1	
Fort Worth	670	106	114	29.27	29.98	+ .04	64.6	− 0.7	90	28	76	33	25	53	40	....	....	....	2.65	0.0	8	8,866	nw.	44	sw.	13	15	10	5	3.6	
Galveston	54	106	112	29.97	30.03	+ .06	69.1	+ 0.4	81	17	74	45	25	64	20	62	58	73	0.92	− 2.2	3	9,101	se.	44	se.	9	16	10	4	3.4	
Palestine	510	73	79	29.46	29.99	+ .03	65.1	− 0.8	85	28	75	34	25	55	33	56	48	62	3.64	− 0.4	9	6,505	s.	26	s.	4	15	11	4	3.5	
San Antonio	701	80	91	29.26	29.98	+ .05	69.5	+ 0.5	91	27	81	46	25	58	38	58	50	61	3.31	+ 0.4	5	4,903	se.	36	n.	15	17	6	7	3.7	
Taylor	583	55	63	29.40	30.01	+ .06	66.6	− 0.9	88	28	78	37	25	55	39	....	....	....	2.13	− 1.8	8	6,650	s.	30	n.	15	17	3	10	3.6	
Ohio Val. and Tenn.							55.4	+ 0.4										66	3.62	0.0								6.0	
Chattanooga	762	189	213	29.17	29.99	− .04	59.6	− 0.4	85	30	70	32	25	50	36	51	44	63	3.30	− 1.1	12	6,958	sw.	55	nw.	15	9	6	15	6.0	4.1
Knoxville	996	93	100	28.90	29.96	− .07	57.8	+ 0.4	85	4	68	33	25	48	36	49	42	64	4.12	− 0.5	13	4,229	sw.	31	sw.	5	11	7	12	5.7	0.7
Memphis	399	76	97	29.57	29.99	− .01	60.0	− 1.8	83	15	68	32	25	52	29	52	45	63	6.95	+ 2.1	11	7,359	sw.	52	sw.	15	10	6	14	5.9	T.
Nashville	546	168	191	29.38	29.97	− .04	58.2	− 0.9	85	29	68	32	25	48	34	51	45	68	6.10	+ 1.7	14	7,589	sw.	47	nw.	22	7	8	15	6.3	1.5
Lexington	989	75	102	28.87	29.94	− .08	54.1	+ 0.4	81	30	64	28	24	44	30	....	....	....	4.22	+ 0.9	14	7,921	sw.	40	sw.	5	5	10	15	6.6	0.8
Louisville	525	111	132	29.36	29.94	− .07	56.8	+ 0.6	85	30	67	33	24	46	32	49	42	63	4.61	+ 0.5	13	6,577	sw.	37	sw.	22	7	7	16	6.2	T.
Evansville	431	72	82	29.44	29.91	− .09	56.6	+ 0.2	81	30	66	30	24	48	29	....	....	....	4.29	+ 0.8	16	6,256	s.	34	s.	22	9	14	7	5.3	3.7
Indianapolis	822	154	164	29.03	29.92	− .08	52.8	+ 0.4	83	29	63	27	23	43	34	46	40	67	2.92	− 0.6	13	7,827	sw.	48	s.	5	6	10	14	5.9	0.3
Cincinnati	628	152	160	29.25	29.93	− .08	55.0	+ 0.7	84	30	66	31	24	44	34	47	40	61	1.65	− 1.3	12	5,075	se.	30	sw.	22	8	8	14	6.1	T.
Columbus	824	173	222	29.04	29.92	− .10	52.6	+ 1.6	81	30	63	29	24	42	37	45	38	65	2.52	− 0.4	14	8,449	sw.	42	sw.	5	9	10	11	5.2	3.2
Pittsburg	842	336	352	29.01	29.92	− .10	52.8	+ 1.8	83	5	63	29	8	43	37	45	38	64	2.21	− 0.7	13	8,084	nw.	46	w.	4	7	9	14	6.4	T.
Parkersburg	638	77	84	29.28	29.94	− .09	54.0	+ 1.0	85	30	66	30	8	42	45	46	40	67	1.87	− 1.0	19	4,253	se.	28	w.	18	8	5	17	6.6	T.
Elkins	1,940	41	50	27.89	29.96	− .07	50.5	+ 1.8	84	5	63	29	10	38	48	44	40	78	2.24	− 1.0	16	2,886	sw.	23	sw.	23	9	8	13	5.9	T.
Lower Lake Region.							48.7	+ 4.0										72	3.48	+ 1.1								5.9	
Buffalo	767	178	206	29.08	29.91	− .10	47.0	+ 4.7	80	5	57	28	7	37	37	43	39	78	4.34	+ 1.9	17	8,249	sw.	52	sw.	30	10	4	16	6.0	0.4
Canton	448	10	71	29.46	29.94	....	47.6	+ 5.1	78	5	57	25	11	38	30	....	....	....	1.61	− 0.6	13	7,151	sw.	44	sw.	30	8	11	11	6.1	0.7
Oswego	335	76	91	29.55	29.92	− .09	47.4	+ 4.2	80	5	56	30	8	39	30	42	37	73	2.00	− 0.3	16	7,381	se.	36	se.	17	8	9	13	5.8	1.0
Rochester	523	86	102	29.36	29.94	− .07	49.7	+ 5.8	83	5	58	29	13	41	31	42	36	66	3.10	+ 0.7	16	5,422	w.	32	w.	30	10	8	12	5.7	0.5
Syracuse	597	97	113	29.28	29.93	− .08	49.2	+ 4.8	80	5	58	30	8	40	32	....	....	....	1.39	− 0.9	16	8,018	nw.	38	se.	16	8	8	14	6.1	0.3
Erie	714	92	102	29.13	29.91	− .11	48.2	+ 3.5	82	5	56	31	7	40	29	43	38	72	2.23	− 0.2	12	7,465	s.	52	se.	17	6	8	16	6.7	0.3
Cleveland	762	190	201	29.08	29.91	− .11	48.2	+ 2.2	79	5	56	32	8	40	34	44	39	74	3.34	+ 1.0	13	10,060	se.	48	ne.	11	9	5	16	5.9	2.0
Sandusky	629	62	70	29.22	29.90	− .12	50.0	+ 2.7	82	29	58	32	19	42	34	....	....	....	6.24	+ 3.7	16	6,035	sw.	30	nw.	6	10	9	11	5.5	5.0
Toledo	628	207	246	29.22	29.90	− .11	50.5	+ 3.2	82	29	60	33	7	41	39	45	40	71	5.79	+ 3.5	16	10,663	sw.	56	sw.	5	11	8	11	4.9	0.1
Detroit	730	218	258	29.12	29.91	− .11	49.0	+ 3.5	75	5	58	31	8	40	40	42	36	68	4.73	+ 2.4	16	10,014	e.	52	sw.	5	9	8	13	5.9	T.

TABLE I.—*Climatological data for U. S. Weather Bureau stations, April, 1910*—Continued.

Stations.	Elevation of instruments.			Pressure, in inches.			Temperature of the air, in degrees Fahrenheit.									Mean wet thermometer.	Mean temperature of the dew-point.	Mean relative humidity, per cent.	Precipitation, in inches.			Wind.					Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness during daylight, tenths.	Total snowfall.
	Barometer above sea level, feet.	Thermometers above ground.	Anemometer above ground.	Actual, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hrs.	Departure from normal.	Mean max. + mean min. ÷ 2	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.				Total.	Departure from normal.	Days with .01, or more.	Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.					
Upper Lake Region.							45.1	+ 4.7										76	3.38	+ 1.0									6.0	
Alpena	609	13	92	29.26	29.93	− .09	42.7	+ 4.7	72	14	50	28	13	35	31	39	36	81	2.82	+ 0.6	15	8,476	se.	37	se.	23	7	11	12	6.2	0.1
Escanaba	612	40	82	29.26	29.94	− .08	41.2	+ 4.0	59	9	48	27	7	34	25	37	33	76	4.87	+ 2.8	13	8,200	n.	47	n.	23	7	8	15	6.4	16.3
Grand Haven	632	54	92	29.19	29.88	− .12	47.6	+ 3.6	75	14	57	28	23	38	35	43	39	76	2.88	+ 0.4	14	8,810	se.	48	w.	23	10	7	13	5.3	0.2
Grand Rapids	707	127	162	29.12	29.90	− .12	50.2	+ 4.0	80	29	61	29	7	39	36	43	38	68	3.16	+ 0.7	12	8,185	se.	40	sw.	29	8	5	17	6.1	T.
Houghton	668	66	74	29.22	29.95	− .07	42.8	+ 5.9	74	4	52	24	23	34	35	.....	.....	.....	2.04	0.0	7	5,932	e.	49	n.	23	10	11	9	4.9	8.6
Marquette	734	77	116	29.14	29.96	− .06	42.3	+ 4.8	75	14	50	26	11	35	32	39	35	80	3.89	+ 1.9	12	8,405	nw.	44	nw.	23	5	12	13	6.5	18.8
Port Huron	638	70	120	29.20	29.90	− .12	46.5	+ 4.3	78	5	56	27	8	38	34	41	38	79	3.50	+ 1.4	16	8,528	n.	36	n.	20	7	3	20	6.7	T.
Sault Sainte Marie	614	11	61	29.26	29.96	− .07	42.0	+ 6.3	72	14	50	26	2	33	37	38	34	80	2.53	+ 6.5	12	6,928	se.	30	se.	16	6	8	16	6.9	1.3
Chicago	823	140	310	29.01	29.90	− .10	51.2	+ 5.3	86	29	60	26	23	43	37	45	40	74	3.84	+ 1.0	14	10,481	sw.	40	nw.	22	11	6	13	5.4	6.9
Milwaukee	681	122	139	29.16	29.90	− .09	46.9	+ 5.1	84	29	56	22	23	38	35	42	37	75	3.48	+ 0.8	12	8,320	ne.	41	se.	17	12	8	10	5.2	8.0
Green Bay	617	49	86	29.22	29.88	− .13	46.2	+ 6.1	75	15	55	25	23	37	32	41	37	74	4.90	+ 2.5	14	8,834	se.	56	n.	23	4	9	17	7.0	12.7
Duluth	1,133	11	47	28.70	29.94	− .07	41.2	+ 2.8	73	13	50	16	23	33	40	35	30	70	1.40	− 0.7	6	10,521	ne.	49	ne.	11	9	12	9	5.3	4.7
North Dakota.							47.9	+ 7.2										63	1.26	− 0.6									4.2	
Moorhead	940	8	57	28.90	29.92	− .07	46.5	+ 5.1	92	27	61	16	16	32	52	40	36	74	1.92	− 0.4	6	8,421	nw.	36	nw.	17	17	6	7	3.6	7.7
Bismarck	1,674	8	57	28.16	29.95	− .02	50.1	+ 7.5	90	27	66	20	23	34	55	41	32	57	0.59	− 1.3	4	10,487	n.	46	nw.	21	17	7	6	3.8	0.5
Devils Lake	1,482	11	44	28.34	29.92	− .07	44.7	+ 6.5	84	27	59	14	16	30	50	37	29	62	1.22	− 0.8	5	11,575	n.	50	n.	17	13	10	7	4.3	3.5
Williston	1,872	14	56	27.94	29.92	− .04	50.3	+ 9.8	91	26	66	18	18	35	48	41	32	58	1.33	+ 0.1	8	8,580	n.	50	n.	3	12	11	7	5.1	0.0
Upper Miss. Valley.							52.6	+ 2.2										63	2.91	0.0									5.6	
Minneapolis	918	102	208	.....	.....	.....	50.6	.....	85	27	63	19	23	38	43	.....	.....	.....	0.64	− 1.8	7	11,115	n.	52	n.	23	14	6	10	4.8	4.9
St. Paul	837	171	179	28.98	29.89	− .10	51.0	+ 5.3	86	27	64	20	23	38	41	42	34	60	0.59	− 1.7	5	7,307	ne.	36	s.	15	13	10	7	4.4	4.5
La Crosse	714	11	48	29.11	29.89	− .09	51.0	+ 3.7	93	29	64	20	23	38	42	.....	.....	.....	2.23	− 0.1	11	4,885	nw.	24	nw.	22	9	8	13	6.0	12.4
Madison	974	70	78	28.81	29.87	− .12	49.0	+ 4.5	83	29	60	19	23	38	35	43	37	70	4.56	+ 2.2	15	8,484	s.	42	ne.	5	10	9	11	5.8	8.4
Charles City	1,015	10	49	28.81	29.90	− .08	50.2	+ 3.9	92	29	63	22	17	37	42	43	38	69	0.88	− 2.0	9	7,070	n.	36	nw.	23	8	9	13	6.1	1.6
Davenport	606	71	79	29.22	29.88	− .10	52.0	+ 1.8	87	29	65	22	23	41	34	45	40	68	3.69	+ 0.8	16	5,926	nw.	31	se.	14	13	6	11	4.9	0.6
Des Moines	861	84	101	28.97	29.89	− .09	53.2	+ 2.6	92	29	65	22	17	41	38	45	39	64	1.13	− 1.8	10	7,705	n.	37	sw.	28	8	8	14	6.3	0.7
Dubuque	698	100	115	29.15	29.90	− .08	51.4	+ 2.5	87	29	63	22	23	40	35	44	38	65	3.40	+ 0.5	14	5,043	s.	25	n.	5	11	6	13	5.5	7.6
Keokuk	614	64	78	29.23	29.90	− .08	54.4	+ 2.4	90	29	65	23	24	44	34	46	41	70	2.91	− 0.4	12	6,991	nw.	37	sw.	4	10	10	10	5.2	T.
Cairo	356	87	93	29.56	29.94	− .05	57.5	− 0.8	84	29	67	28	24	48	29	50	45	70	6.78	+ 3.2	14	7,243	s.	54	sw.	14	7	8	15	6.7	1.6
La Salle	536	56	64	29.33	29.91	− .08	51.8	+ 2.0	88	29	64	21	24	40	38	.....	.....	.....	3.78	+ 0.7	16	6,389	sw.	31	sw.	5	10	7	13	5.9	4.6
Peoria	609	11	45	29.23	29.90	− .09	52.0	+ 1.1	89	29	64	22	24	40	36	45	40	71	3.56	+ 0.3	17	6,360	s.	34	sw.	29	11	10	9	5.4	1.7
Springfield, Ill.	644	10	91	29.20	29.89	− .09	53.6	+ 1.6	89	29	64	22	24	43	33	47	42	70	2.81	− 0.5	15	7,255	s.	33	sw.	5	8	7	15	6.1	3.6
Hannibal	534	75	109	29.33	29.90	− .08	53.3	− 0.3	92	29	64	24	24	42	35	.....	.....	.....	2.60	− 0.6	14	7,346	sw.	40	sw.	29	8	10	12	5.6	2.0
St. Louis	567	208	317	29.29	29.90	− .08	55.8	− 0.3	89	29	65	25	24	47	31	48	43	67	4.09	+ 0.6	15	8,689	nw.	39	nw.	22	11	5	14	5.9	2.3
Missouri Valley.							54.1	+ 3.7										55	1.15	− 1.3									4.6	
Columbia, Mo.	784	11	84	29.08	29.92	− .06	54.0	+ 0.3	91	29	64	27	24	44	37	.....	.....	.....	3.82	+ 0.1	15	6,926	sw.	36	s.	29	10	7	13	5.5	T.
Kansas City	963	161	181	28.86	29.90	− .06	56.0	+ 1.7	95	29	66	30	24	46	33	48	40	60	2.35	− 0.9	11	11,615	nw.	56	nw.	23	9	13	8	5.0	0.1
Springfield, Mo.	1,324	98	104	28.53	29.94	− .03	54.7	− 1.0	85	29	64	28	24	45	33	47	41	68	2.52	− 1.3	12	8,654	nw.	39	n.	24	12	7	11	4.6	1.5
Iola	984	11	50	28.88	29.92	− .03	57.4	+ 3.2	92	29	70	30	20	45	48	.....	.....	.....	1.10	− 1.7	9	7,081	nw.	33	n.	24	11	8	11	4.9	T.
Topeka	983	85	101	.....	.....	.....	56.8	+ 3.1	95	29	69	33	16	45	44	.....	.....	.....	0.66	− 2.1	10	9,596	nw.	44	nw.	23	12	13	5	3.9	T.
Lincoln	1,189	11	84	28.65	29.91	− .03	55.6	+ 4.9	97	28	69	28	17	43	50	44	33	52	0.02	− 2.8	1	11,091	sw.	56	n.	23	12	6	12	5.0	0.3
Omaha	1,105	115	121	28.73	29.91	− .04	55.0	+ 4.5	94	28	66	22	17	44	46	45	36	56	0.26	− 2.8	4	8,790	n.	48	n.	23	12	10	8	4.8	2.1
Valentine	2,598	47	54	27.24	29.95	+ .01	51.0	+ 5.6	94	28	66	21	19	36	57	40	28	35	0.12	− 2.2	2	9,652	nw.	48	nw.	17	18	8	4	3.3	T.
Sioux City	1,135	96	164	28.70	29.92	− .03	52.9	+ 4.4	98	28	65	21	17	40	44	43	34	57	0.82	− 2.0	4	12,343	n.	65	n.	23	10	12	8	5.4	1.2
Pierre	1,572	70	75	28.27	29.93	− .02	53.6	+ 7.1	94	20	68	27	16	39	51	42	30	49	0.59	− 1.4	3	9,723	nw.	48	nw.	17	15	10	5	3.6	T.
Huron	1,306	56	67	28.54	29.94	− .02	49.8	+ 5.2	94	28	65	20	17	35	48	42	34	63	0.89	− 1.8	5	10,846	n.	48	s.	2	15	6	9	4.3	3.1
Yankton	1,233	49	57	28.59	29.91	− .04	52.3	+ 4.9	100	28	65	21	17	40	47	.....	.....	.....	0.62	− 2.2	6	8,710	nw.	40	se.	3	10	14	6	5.0	5.0
Northern Slope.							50.2	+ 7.4										54	0.32	− 0.7									4.4	
Havre	2,505	11	44	27.30	29.92	− .01	53.3	+10.6	94	26	69	23	15	38	51	44	36	60	0.48	− 0.5	7	6,244	nw.	36	sw.	9	10	16	4	4.7	
Miles City	2,371	26	48	27.43	29.98	+ .02	56.0	+11.3	90	26	70	28	17	42	46	46	38	60	1.35	+ 0.2	6	5,169	se.	32	nw.	3	19	7	4	3.5	0.4
Helena	4,110	8	56	25.79	29.97	.00	52.0	+10.0	86	25	66	27	3	38	42	40	29	49	0.34	− 0.8	8	6,005	w.	36	w.	9	10	14	6	5.0	0.4
Kalispell	2,962	11	34	26.93	29.99	+ .03	47.8	+ 5.3	84	25	60	25	14	36	42	40	33	63	0.86	− 0.2	10	3,633	sw.	25	w.	13	10	11	9	5.2	2.1
Rapid City	3,234	46	50	26.57	29.98	+ .03	51.7	+ 8.2	90	28	65	30	16	38	52	41	29	46	0.74	− 1.6	4	7,210	nw.	40	nw.	15	12	13	5	4.2	T.
Cheyenne	6,088	56	64	24.00	29.96	+ .05	46.4	+ 4.8	82	28	60	21	4	33	42	36	25	49	1.14	− 0.7	5	8,521	nw.	50	nw.	16	11	14	5	4.7	3.7
Lander	5,372	26	36	24.65	30.01	+ .07	48.6	+ 6.4	82	27	64	12	4	33	46	38	26	50	1.30	− 1.2	6	3,394	sw.	32	sw.	2	15	12	3	3.9	11.5
Sheridan	3,790	9	47	26.08	29.97	.....	50.8	.....	85	28	67	22	5	34	53	40	28	50	1.19	.....	7	6,763	nw.	50	nw.	3	18	5	7	4.0	0.8
Yellowstone Park	6,200	11	48	23.90	30.03	+ .07	43.2	+ 6.2	74	26	56	13	4	30	39	35	27	61	1.19	− 0.2	9	5,592	sw.	42	s.	2	9	15	6	4.7	2.1
North Platte	2,821	11	51	27.04	29.97	+ .05	52.7	+ 3.7	95	28	69	25	19	37	50	41	29	51	0.48	− 1.7	5	8,086	nw.	52	nw.	21	19	2	9	3.9	
Middle Slope.							56.5	+ 2.8										50	1.43	− 0.6									4.0	
Denver	5,291	129	136	24.72	29.96	+ .06	52.2	+ 4.5	86	28	66	25	44	39	39	40	26	44	1.38	− 0.8	5	7,613	s.	52	ne.	14	14	11	5	4.0	T.
Leadville	10,242	7	.....	.....	.....	.....	53.3	+ 2.8	88	28	68	22	5	38	42	40	28	45	1.42	0.0	6	5,458	nw.	39	ne.	21	16	9	5	3.6	T.
Pueblo	4,685	80	86	25.28	29.96	+ .08	56.7	+ 3.1	94	28	70	29	19	44	51	45	35	53	0.59	− 1.8	5	7,190	nw.	37	se.	13	10	15	5	4.5	T.
Concordia	1,398	42	50	28.46	29.93	.00	56.6	+ 2.2	95	28	71	30	6	42	47	44	34	51	0.93	− 0.9	4	9,974	nw.	51	se.	13	14	12	4	3.8	
Dodge City	2,509	11	51	27.37	29.97	+ .07	58.7	+ 2.1	96	29	71	32	19	46	39	48	37	51	0.96	− 1.7	5	10,005	nw.	54	se.	13	12	12	6	4.7	
Wichita	1,358	98	121	28.53	29.96	+ .03	61.3	+ 1.7	89	29	73	35	25	50	37	51	42	59	4.31	+ 1.5	5	12,733	s.	67	w.	13	16	10	4	3.6	
Oklahoma	1,214	10	47	28.66	29.94	+ .02	63.2	+ 0.8										47	1.32	− 0.5									3.7	
Southern Slope.							65.8	+ 1.4	94	21	79	38	25	53	43	52	39	47	1.31	− 1.0	4	8,524	s.	34	s.	21	17	5	8	3.7	
Abilene	1,738	10	52	28.18	29.97	+ .07	58.3	+ 3.7	94	29	74	30	5	43	43	45	34	52	0.59	− 1.1	4	9,578	nw.	48	nw.	21	22	5	3	3.3	1.
Amarillo	3,676	10	49	26.25	29.95	+ .08	69.2	− 0.8	92	21	83	43	5	56	44	.....	.....	.....	3.30	+ 0.4	5	5,970	se.	36	n.	15	19	5	6	3.1	
Del Rio	944	8	57	28.99	29.97	+ .08	59.6	− 1.0	92	29	78	27	5	41	50	45	30	41	0.08	− 0.4	4	5,182	sw.	40	ne.	4	21	5	4	3.4	
Roswell	3,578	9	57	26.35	29.96	+ .11	59.3	+ 2.0										38	0.35	− 0.2									2.7	
Southern Plateau.							63.6	− 0.2	92	28	77	34	16	50	38	45	20	24	T.	− 0.2	0	8,592	w.	43	ne.	14	20	8	2	2.1	
El Paso	3,762	110	133	26.17	29.90	+ .07	47.6	0.0	75	28	61	18	16	34	36	35	22	43	0.99	+ 0.1	9	7,019	e.	45	n.	3	20	8	2	3.3	0.5
Santa Fe	7,013	8	56	23.26	29.94	+ .10	44.6	+ 2.4	76	26	61	20	1	29	44	34	22	52	0.52	− 1.1	5	6,247	sw.	40	sw.	3	13	10	7	4.1	3.3
Flagstaff	6,907	8	57	23.37	29.94	+ .10	70.0	+ 3.4	100	19	86	44	13	55	44	54	40	37	0.29	− 0.1	2	3,063	e.	22	sw.	12	20	10	0	2.1	
Phoenix	1,108	50	56	28.75	29.89	+ .02	73.2	+ 3.1	106	24	91	47	2	55	50	55	37	35	T.	− 0.1	0	4,550	w.	33	n.	15	26	2	2	1.1	
Yuma	141	9	58	29.74	29.89	.00	72.8	.....	106	24	91	43	1	54	52	.....	.....	.....	T.		0	4,689	w.	31	sw.	11	22	6	2	2.6	
Brawley	†105	11	31	30.00	29.89	.....	73.2	+ 3.1	88	25	76	35	4	44	42	45	28	35	0.31	+ 0.2	1	.....	nw.	36	se.	28	17	13	0	2.6	
Independence	3,910	11	42	25.98	29.95	+ .05	59.8	+ 3.1										42	0.37	− 0.9									3.5	
Middle Plateau.							52.2	+ 3.6																					4.0	
Reno	4,532	56	63	25.50	30.00	+ .03	53.4	+ 6.1	85	24	69	24	4	38	45	40	26	41	0.14	− 0.5	1	5,718	sw.	36	sw.	19	18	8	4	3.4	
Tonopah	6,090	12	20	24.08	29.94	.....	53.0	.....	77	25	64	27	4	42	31	39	22	33	0.01	− 1.7	1	7,699	se.	56	nw.	3	15	14	1	3.6	T.
Winnemucca	4,344	18	56	25.65	30.03	+ .07	52.4	+ 5.3	87	24	69	23	4	36	48	40	28	50	0.63	− 0.2	6	4,436	sw.	36	sw.	2	13	7	10	4.6	
Modena	5,479	10	43	24.64	29.97	+ .09	49.6	+ 2.7	80	25	66	18	4	33	45	37	20	38	0.28	− 1.4	4	8,270	w.	48	sw.	28	14	12	4	4.3	
Salt Lake City	4,360	147	189	25.63	29.99	+ .07	54.6	+ 4.5	85	26	66	29	15	44	33	42	29	40	0.66	− 1.6	5	6,283	nw.	60	n.	2	17	10	3	3.2	1.5
Durango	6,546	18	56	23.65	29.95	+ .10	47.7	+ 1.3	78	27	63	19	16	32	42	36	24	48	0.55	− 0.6	6	4,950	nw.	28	w.	3	9	16	5	4.5	T.
Grand Junction	4,608	43	51	25.38	29.95	+ .07	55.2	+ 2.0	85	27	69	26	16	69	42	42	29	44	0.32	− 0.4	5	4,003	nw.	36	sw.	20	15	8	7	4.1	0.1
Northern Plateau.							54.5	+ 4.5										51	1.36	− 0.1									5.4	
Baker City	3,471	48	58	.....	.....	.....	55.9	+ 5.8	91	25	68	29	15	43	39	44	31	46	1.10	− 0.1	7	4,507	nw.	38	nw.	2	14	7	9	4.8	T.
Boise	2,739	78	86	27.19	30.04	+ .06	55.8	+ 2.9	92	25	68	34	15	44	42	.....	.....	.....	1.36	+ 0.2	11	4,302	e.	52	w.	5	5	13	12	6.2	
Lewiston	757	10	51	29.24	30.06	+ .07	51.9	+ 5.1	84	26	65	25	15	39	37	41	29	49	1.54	− 0.5	6	6,382	se.	38	sw.	13	15	9	6	4.0	0.7
Pocatello	4,477	46	54	25.49	30.01	+ .07	52.0	+ 4.3	87	25	63	30	3	41	38	43	34	57	1.32	0.0	9	5,392	sw.	33	s.	26	5	9	16	6.9	T.
Spokane	1,929	101	110	27.98	30.04	+ .05	57.0	+ 4.2	92	25	68	34	14	46	36	47	38	52	1.47	− 0.2	8	4,444	s.	30	sw.	2	11	13	6	4.9	
Walla Walla	1,000	71	79	28.98	30.05	+ .04	48.9	+ 0.5										77	2.35	− 0.4									6.1	
N. Pac. Coast Reg.																														
Blaine	58	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Head	211	11	56	29.90	30.14	+ .09	47.1	− 0.4	57	15	50	38	6	44	15	45	43	87	3.44	+ 0.2	14	10,299	nw.	58	se.	7	6	13	11	6.6	

TABLE I.—*Climatological data for U. S. Weather Bureau stations, April, 1910*—Continued.

Stations.	Elevation of instruments.			Pressure, in inches.			Temperature of the air, in degrees Fahrenheit.								Mean wet thermometer.	Mean temperature of the dew-point.	Mean relative humidity, per cent.	Precipitation, in inches.			Wind.				Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness during daylight, tenths.	Total snowfall.
	Barometer above sea level, feet.	Thermometers above ground.	Anemometer above ground.	Actual, reduced to mean of 24 hours.	Sea level, reduced to mean of 24 hrs.	Departure from normal.	Mean max. + mean min. ÷ 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.				Total.	Departure from normal.	Days with .01 or more.	Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Maximum velocity. Direction.	Maximum velocity. Date.				
N.P.Coast Reg.-Con.																													
Port Crescent	259	8	53	29.83	30.12	+ .10	42.9	− 1.8	67	23	51	29	17	35	28	....	....	....	1.58	− 0.9	16	3,948	nw.	18	sw.	12	3	23	4	5.5	T.
Seattle	123	185	224	29.98	30.12	+ .09	49.4	0.0	83	23	56	35	2	42	34	45	42	78	2.41	− 6.3	14	5,718	s.	34	s.	12	6	6	18	7.1	
Tacoma	213	113	120	29.87	30.10	+ .07	49.6	+ 0.7	85	23	58	34	2	41	39	44	40	74	2.86	+ 0.1	12	4,151	sw.	24	sw.	1	10	7	13	5.7	T.
Tatoosh Island	86	7	57	29.99	30.09	+ .09	45.4	− 0.7	58	23	50	35	2	41	13	43	40	84	4.18	− 2.1	19	10,286	s.	46	s.	7	5	7	18	7.4	T.
Portland, Oreg.	153	68	106	29.94	30.10	+ .04	53.8	+ 2.6	89	23	63	34	14	45	35	48	42	69	3.78	+ 0.7	12	4,020	nw.	28	sw.	2	7	9	14	6.1	
Roseburg	510	9	57	29.55	30.10	+ .03	54.2	+ 3.3	92	24	67	32	14	42	46	47	42	71	1.73	− 0.8	11	2,297	nw.	36	sw.	2	11	13	6	4.6	
Mid. Pac. Coast Reg.							57.9	+ 2.5										71	0.39	− 1.7									4.3	
Eureka	62	62	80	30.07	30.14	+ .03	50.4	+ 0.9	65	10	56	38	3	45	18	47	44	82	0.83	− 3.1	10	5,868	n.	38	se.	10	8	8	14	6.4	
Mount Tamalpais	2,375	11	18	27.60	30.07	+ .02	54.0	.....	83	23	61	37	11	47	24	48	44	73	0.68	− 1.3	6	12,285	nw.	72	nw.	28	15	7	8	4.1	
Point Reyes Light	490	7	18	29.53	30.05	.....	51.5	.....	83	22	56	44	24	46	38	....	....	....	0.39	.....	6	16,696	nw.	79	nw.	13	10	9	11	5.8	
Red Bluff	332	50	56	29.67	30.03	.00	63.0	+ 3.9	92	23	75	43	3	52	36	53	45	59	0.15	− 1.7	2	4,089	se.	27	nw.	3	19	6	5	3.1	
Sacramento	69	106	117	29.96	30.03	+ .02	60.8	+ 2.8	89	24	71	44	29	50	32	53	47	65	0.11	− 1.9	2	5,872	s.	28	nw.	14	19	8	3	2.9	
San Francisco	155	200	204	29.91	30.08	+ .03	57.1	+ 3.4	87	23	64	46	18	50	32	51	47	77	0.31	− 1.5	4	5,926	w.	30	sw.	10	20	5	5	2.8	
San Jose	141	12	110	29.92	30.07	.....	58.1	+ 1.4	90	23	70	38	29	46	43	....	....	....	0.41	− 1.0	2	3,026	nw.	32	s.	10	17	9	4	3.6	
Southeast Farallon	30	9	17	30.06	30.10	.....	51.1	.....	60	5	54	45	16	49	10	....	....	....	0.25	− 1.6	2	12,002	nw.	56	nw.	12	8	10	12	5.7	
S. Pac. Coast Reg.							62.2	+ 4.2										66	0.22	− 0.8									3.4	
Fresno	330	67	70	29.67	30.02	+ .03	65.2	+ 4.0	101	24	80	44	3	56	43	54	44	56	0.27	− 0.4	3	4,439	nw.	19	nw.	19	15	13	2	3.3	
Los Angeles	338	159	191	29.64	30.01	+ .02	63.6	+ 6.0	100	23	74	47	12	53	35	53	46	64	0.30	− 0.8	1	4,552	sw.	20	ne.	23	15	10	5	3.8	
San Diego	87	94	102	29.91	30.00	+ .01	61.7	+ 3.5	96	23	69	47	2	54	34	54	48	69	0.08	− 0.7	2	4,333	nw.	22	nw.	24	20	6	4	2.8	
San Luis Obispo	201	47	54	29.85	30.07	+ .02	58.3	+ 3.1	96	23	69	42	12	47	43	51	47	73	0.23	− 1.2	4	4,320	nw.	24	w.	28	18	6	6	3.8	
West Indies.																														
Grand Turk	11	6	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
San Juan	82	48	90	29.92	30.00	+ .02	76.2	.....	87	20	82	67	2	71	17	70	67	73	3.85	+ 0.3	9	7,846	e.	27	e.	12	13	12	5	4.5	
Panama.																														
Christobal	17	5	60	29.84	29.86	.....	79.2	.....	84	24	82	73	10	76	10	75	74	84	3.30	− 0.9	19	9,451	n.	27	nw.	1	4	19	7	6.0	
Culebra	172	4	30	29.44	29.86	.....	79.0	.....	91	24	86	69	10	72	20	73	72	88	5.35	+ 1.6	14	6,086	nw.	30	n.	23	1	14	15	7.0	
Ancon	92	6	69	29.75	29.84	.....	80.4	.....	92	4	88	70	2	72	21	75	73	87	3.71	+ 1.2	21	5,837	nw.	24	nw.	9	0	9	21	7.9	
Alhajuela	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.99	− 0.4	18	.....	.....	.....	.....	.....	.....	.....	.....	
Bohio	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.46	+ 0.6	21	.....	.....	.....	.....	.....	.....	.....	.....	
Gatun	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.97	+ 1.3	18	.....	.....	.....	.....	.....	.....	.....	.....	

† Below sea level.

TABLE II.—*Accumulated amounts of precipitation for each 5 minutes, for storms in which the rate of fall equaled or exceeded 0.25 in any 5 minutes, or 0.80 inch in 1 hour, during April, 1910, at all stations furnished with self-registering gages.*

Stations.	Date.	Total duration. From—	Total duration. To—	Total amount of precipitation.	Excessive rate. Began—	Excessive rate. Ended—	Amount before excessive began.	Depths of precipitation (in inches) during periods of time indicated. 5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
Abilene, Tex	2	.....	.....	0.54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.28	.....	.....	.....
Albany, N. Y	26	.....	.....	0.89	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.53	.....	.....	.....
Alpena, Mich	16–17	.....	.....	0.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.13	.....	.....	.....
Amarillo, Tex	13	.....	.....	0.26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.21	.....	.....	.....
Anniston, Ga	12	5:35 a. m.	7:05 a. m.	0.48	5:40 a. m.	6:00 a. m.	0.01	0.10	0.28	0.33	0.40	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Asheville, N. C	2	.....	.....	0.27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.25	.....	.....	.....
Atlanta, Ga	16	.....	.....	2.10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.73	.....	.....	.....
Atlantic City, N. J	19	.....	.....	0.61	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.49	.....	.....	.....
Augusta, Ga	17	.....	.....	0.90	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.27	.....	.....	.....
Baltimore, Md	17	.....	.....	3.39	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.49	.....	.....	.....
Bentonville, Ark	14	.....	.....	0.52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.36	.....	.....	.....
Binghamton, N. Y	24–25	.....	.....	2.09	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	*	.....	.....	.....
Birmingham, Ala	12	9:57 a. m.	2:05 p. m.	0.71	9:57 a. m.	10:22 a. m.	0.00	0.09	0.16	0.26	0.50	0.62	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bismarck, N. Dak	14	.....	.....	0.52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	*	.....	.....	.....
Block Island, R. I	26	.....	.....	0.52	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.16	.....	.....	.....
Boise, Idaho	28	.....	.....	0.59	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.14	.....	.....	.....
Boston, Mass	8	.....	.....	0.72	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.26	.....	.....	.....
Buffalo, N. Y	29	.....	.....	0.90	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.32	.....	.....	.....
Burlington, Vt	27	.....	.....	0.47	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.30	.....	.....	.....
Cairo, Ill	14	5:40 p. m.	D. N.	1.42	6:09 p. m.	6:19 p. m.	0.10	0.21	0.42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Do	15–16	6:17 p. m.	D. N.	1.83	6:42 p. m.	7:03 p. m.	0.04	0.20	0.44	0.65	0.83	0.85	.....	.....	.....	.....	.....	.....	.....	.....	.....
Canton, N. Y	18	.....	.....	0.49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.09	.....	.....	.....
Charles City, Iowa	4	.....	.....	0.18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.18	.....	.....	.....
Charleston, S. C	13	.....	.....	0.26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.23	.....	.....	.....
Charlotte, N. C	16	.....	.....	0.65	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.52	.....	.....	.....
Chattanooga, Tenn	15	1:15 p. m.	7:10 p. m.	1.19	1:51 p. m.	2:01 p. m.	0.14	0.35	0.46	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cheyenne, Wyo	29–30	.....	.....	0.81	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	*	.....	.....	.....
Chicago, Ill	22	.....	.....	0.69	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.31	.....	.....	.....
Cincinnati, Ohio	16	.....	.....	0.62	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.32	.....	.....	.....
Cleveland, Ohio	4	12:05 p. m.	1:44 p. m.	0.91	12:26 p. m.	12:55 p. m.	0.03	0.09	0.39	0.64	0.71	0.79	.....	.....	.....	.....	.....	.....	.....	.....	.....
Columbia, Mo	4	3:40 p. m.	8:32 p. m.	1.30	4:42 p. m.	4:57 p. m.	T.	0.40	0.62	0.67	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Columbia, S. C	16	.....	.....	0.24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.24	.....	.....	.....
Columbus, Ohio	16	.....	.....	0.31	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.18	.....	.....	.....
Concord, N. H	18	.....	.....	0.45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.35	.....	.....	.....
Concordia, Kans	13	.....	.....	0.41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.18	.....	.....	.....
Corpus Christi, Tex	9	6:29 p. m.	9:22 p. m.	1.88	6:49 p. m.	8:02 p. m.	0.04	0.26	0.54	0.86	1.02	1.15	1.24	1.30	1.39	1.49	1.58	1.68	1.80	.....	.....
Davenport, Iowa	14	.....	.....	0.44	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.39	.....	.....	.....
Del Rio, Tex	9	.....	.....	1.77	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.51	.....	.....	.....
Denver, Colo	29	.....	.....	0.38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.22	.....	.....	.....
Des Moines, Iowa	3	.....	.....	0.30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.30	.....	.....	.....
Detroit, Mich	4	.....	.....	0.42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.27	.....	.....	.....
Devils Lake, Mich	14	.....	.....	0.55	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.17	.....	.....	.....
Dodge City, Kans	13	.....	.....	0.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.32	.....	.....	.....
Dubuque, Iowa	22	.....	.....	0.68	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.25	.....	.....	.....
Duluth, Minn	16–17	.....	.....	0.64	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	*	.....	.....	.....
Durango, Colo	8–9	.....	.....	0.20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	*	.....	.....	.....
Eastport, Me	20	.....	.....	1.43	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.23	.....	.....	.....
Elkins, W. Va	16	.....	.....	0.29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.25	.....	.....	.....
El Paso, Tex	7	.....	.....	T.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T.	.....	.....	.....
Erie, Pa	24–25	.....	.....	1.02	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	*	.....	.....	.....
Escanaba, Mich	18	4:18 p. m.	6:25 p. m.	0.67	4:38 p. m.	5:00 p. m.	0.09	0.06	0.08	0.20	0.50	0.53	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE II.—*Accumulated amounts of precipitation for each 5 minutes, etc.*—Continued.

Stations.	Date.	Total duration. From—	Total duration. To—	Total amount of precipitation.	Excessive rate. Began—	Excessive rate. Ended—	Amount before excessive began.	Depths of precipitation (in inches) during periods of time indicated. 5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
Eureka, Cal	1			0.12														0.11			
Evansville, Ind	15			0.76														0.34			
Flagstaff, Aris	13			0.33														*			
Fort Smith, Ark	4			0.83														0.54			
Fort Worth, Tex	1-2	7:09 a. m.	5:40 a. m.	1.00	11:28 p. m.	11:58 p. m.	0.11	0.18	0.37	0.50	0.57	0.61	0.66								
Fresno, Cal	27			0.22														0.10			
Galveston, Tex	4-5	10:15 p. m.	1:00 a. m.	0.57	11:40 p. m.	11:50 p. m.	0.13	0.23	0.31												
Grand Haven, Mich	22			0.41														0.24			
Grand Junction, Colo	3			0.16														*			
Grand Rapids, Mich	16			0.52														0.37			
Green Bay, Wis	22-23			1.60														*			
Hannibal, Mo	14			0.30														0.24			
Harrisburg, Pa	23			0.64														0.33			
Hartford, Conn	25-26			1.80														*			
Hatteras, N. C	24			0.31														0.12			
Havre, Mont	9			0.21														0.18			
Helena, Mont	28			0.21														0.10			
Houghton, Mich	22-23			0.83														*			
Huron, S. Dak	14			0.42														0.22			
Independence, Cal	11			0.31														0.20			
Indianapolis, Ind	16			0.68														0.32			
Iola, Kans	30			0.24														0.23			
Jacksonville, Fla	27			0.35														0.22			
Jupiter, Fla	18	6:03 p. m.	6:17 p. m.	0.37	6:07 p. m.	6:14 p. m.	0.02	0.30	0.35												
Kalispell, Mont	3			0.21														*			
Kansas City, Mo	10			0.49														0.36			
Keokuk, Iowa	14	8:00 p. m.	11:00 p. m.	1.22	8:26 p. m.	9:06 p. m.	0.07	0.14	0.38	0.46	0.56	0.72	0.83	0.85	0.86						
Key West, Fla	5			0.03														0.03			
Knoxville, Tenn	12			0.88														0.57			
La Crosse, Wis	22			0.30														0.12			
Lander, Wyo	13-14			0.75														*			
La Salle, Ill	4			0.49														0.47			
Lewiston, Idaho	2			0.29														0.18			
Lexington, Ky	16			1.02														0.35			
Lincoln, Nebr	16-17			0.02														*			
Little Rock, Ark	11	D. N.	6:35 a. m.	1.50	5:12 a. m.	5:47 a. m.	0.75	0.09	0.11	0.17	0.32	0.48	0.58	0.62							
Los Angeles, Cal	11			0.30														0.12			
Louisville, Ky	16	12:10 a. m.	7:40 a. m.	1.58	1:46 a. m.	2:36 a. m.	0.06	0.19	0.28	0.39	0.42	0.43	0.45	0.58	0.66	0.71	0.79				
Lynchburg, Va	16-17			2.67†														*			
Macon, Ga	17			1.29														0.58			
Madison, Wis	22			0.54														0.22			
Marquette, Mich	22-23			1.31														*			
Memphis, Tenn	14-15	3:23 p. m.	5:45 a. m.	4.58	7:50 p. m.	8:21 p. m.	1.09	0.07	0.15	0.17	0.21	0.40	0.53	0.56							
					1:42 a. m.	1:58 p. m.	2.95	0.26	0.40	0.61	0.63										
					3:20 a. m.	3:45 a. m.	3.70	0.05	0.11	0.27	0.44	0.54									
Meridian, Miss	15-16	9:40 p. m.	9:00 a. m.	1.83	12:32 a. m.	12:51 a. m.	T.	0.27	0.48	0.58	0.73										
					6:36 a. m.	6:51 a. m.	1.00	0.09	0.40	0.59											
Milwaukee, Wis	22-23			1.65†														*			
Minneapolis, Minn	17			0.18														0.03			
Mobile, Ala	16	7:00 a. m.	12:50 p. m.	1.12	11:03 a. m.	11:53 a. m.	0.11	0.21	0.33	0.59	0.79	0.88	1.03								
Modena, Utah	9			0.18														0.15			
Montgomery, Ala	5			0.62														0.48			
Moorhead, Minn	16			1.00														*			
Mount Tamalpais, Cal	11			0.35														0.06			
Mount Weather, Va	17-18			1.47														0.36			
Nantucket, Mass	26			1.63														0.32			
Nashville, Tenn	14-15	10:45 p. m.	10:30 a. m.	3.31	4:35 a. m.	5:05 a. m.	1.62	0.09	0.35	0.70	0.93	1.23	1.33								
New Haven, Conn	25			1.59														0.43			
New Orleans, La	16	7:45 a. m.	10:15 a. m.	0.78	8:41 a. m.	8:52 a. m.	0.27	0.30	0.48												
New York, N. Y	26			0.85														0.53			
Norfolk, Va	17			1.05														0.53			
Northfield, Vt	27			0.48														0.40			
North Head, Wash	7			1.24														0.09			
North Platte, Nebr	14			0.27														0.11			
Oklahoma, Okla	13	5:40 p. m.	10:45 p. m.	3.75	6:03 p. m.	7:48 p. m.	0.01	0.12	0.21	0.38	0.51	0.73	0.91	1.12	1.31	1.45	1.67	2.01	2.45	3.15	3.46
Omaha, Nebr	16-17			0.20														*			
Oswego, N. Y	23-24			0.48														*			
Palestine, Tex	8- 9	6:20 p. m.	5:10 a. m.	2.32	6:25 p. m.	6:50 p. m.	0.01	0.23	0.60	0.85	0.98	1.16									
Parkersburg, W. Va	25-26			0.70														0.15			
Pensacola, Fla	16			0.61														0.24			
Peoria, Ill	30			0.41														0.30			
Philadelphia, Pa	24	10:08 a. m.	12:15 p. m.	0.70	11:14 a. m.	11:39 a. m.	0.10	0.06	0.22	0.35	0.45	0.53									
Phoenix, Aris	12			0.27														0.25			
Pierre, S. Dak	14			0.51														0.26			
Pittsburg, Pa	24-25			0.72														*			
Pocatello, Idaho	2			0.69														0.35			
Point Reyes Light, Cal	19			0.09														0.07			
Port Huron, Mich	25			0.06														0.21			
Portland, Me	26			0.95														0.28			
Portland, Oreg	2			1.16														0.22			
Providence, R. I	26			0.81														0.21			
Pueblo, Colo	13			1.00														0.23			
Raleigh, N. C	17	D. N.	9:15 a. m.	1.46	6:34 a. m.	7:10 a. m.	0.18	0.16	0.19	0.39	0.41	0.46	0.51	0.70	0.75						
Rapid City, S. Dak	13			0.21														0.07			
Red Bluff, Cal	10			0.14														0.08			
Reno, Nev	28			0.14														0.09			
Richmond, Va	17	12:05 a. m.	10:35 p. m.	3.65	1:07 p. m.	1:57 p. m.	1.55	0.06	0.15	0.23	0.40	0.52	0.59	0.67	0.81	0.96	1.03				
Do	17-18	11:50 p. m.	5:00 a. m.	1.87	1:54 a. m.	2:53 a. m.	0.33	0.07	0.15	0.19	0.28	0.34	0.46	0.55	0.63	0.76	0.82	1.02			
Do	24	9:25 p. m.	10:28 p. m.	0.59	9:29 p. m.	9:54 p. m.	0.01	0.06	0.13	0.23	0.34	0.49									
Rochester, N. Y	19			0.59														0.27			
Roseburg, Oreg	10			0.39														0.34			
Roswell, N. Mex	15			0.04														0.03			
Sacremento, Cal	10			0.10														0.04			
St. Louis, Mo	14			0.59														0.53			
St. Paul, Minn	16-17			0.26														*			
Salt Lake City, Utah	2			0.38†														0.32			
San Antonio, Tex	8- 9	7:30 p. m.	7:25 a. m.	1.51	2:51 a. m.	3:51 a. m.	0.34	0.08	0.24	0.41	0.61	0.65	0.71	0.74	0.77	0.80	0.83	0.86			
Do	9	12:40 p. m.	4:00 p. m.	0.89	1:26 p. m.	2:01 p. m.	0.07	0.10	0.25	0.38	0.48	0.51	0.54	0.56							
San Diego, Cal	12			0.06														0.05			
Sandusky, Ohio	4	11:00 a. m.	11:50 a. m.	1.04	11:08 a. m.	11:37 a. m.	0.01	0.11	0.28	0.72	0.86	0.95	1.01								
San Francisco, Cal	10			0.18														0.10			
San Jose, Cal	11			0.30														0.10			
San Luis Obispo, Cal	5			0.06														0.04			

TABLE II.—*Accumulated amounts of precipitation for each 5 minutes, etc.*—Continued.

Stations.	Date.	Total duration. From—	Total duration. To—	Total amount of precipitation.	Excessive rate. Began—	Excessive rate. Ended—	Amount before excessive began.	Depths of precipitation (in inches) during periods of time indicated. 5 min.	10 min.	15 min.	20 min.	25 min.	30 min.	35 min.	40 min.	45 min.	50 min.	60 min.	80 min.	100 min.	120 min.
Santa Fe, N. Mex.	9			0.44														*			
Sault Sainte Marie, Mich	16–17			0.77														*			
Savannah, Ga.	17			0.73														0.40			
Scranton, Pa.	24			0.95														0.21			
Seattle, Wash.	5			0.38														0.09			
Sheridan, Wyo.	13			0.60														0.18			
Shreveport, La.	4			0.86														0.33			
Sioux City, Iowa	14–15			0.70														*			
Southeast Farallon, Cal.	10			0.18														0.09			
Spokane, Wash.	9			0.43														0.13			
Springfield, Ill.	16			0.44														0.23			
Springfield, Mo.	15			0.42														0.30			
Syracuse, N. Y.	19			0.13														0.13			
Tacoma, Wash.	2			0.82														0.14			
Tampa, Fla.	25			0.34														0.33			
Tatoosh Island, Wash.	29			0.25														0.19			
Taylor, Tex.	9			1.32														0.36			
Thomasville, Ga.	12			0.59														0.34			
Toledo, Ohio.	16			0.36														0.31			
Tonopah, Nev.	11			0.01														0.01			
Topeka, Kans.	14			0.19														0.11			
Valentine, Nebr.	14–15			0.12														*			
Vicksburg, Miss.	15–16	6:14 p. m.	8:55 a. m.	3:37	7:42 p. m.	8:22 p. m.	0.52	0.08	0.13	0.26	0.46	0.56	0.72	0.80	0.90						
Walla Walla, Wash.	5			0.44														0.31			
Washington, D. C.	17			2.74														0.51			
Wichita, Kans.	13			0.50														0.31			
Williston, N. Dak.	13			0.62														0.19			
Wilmington, N. C.	27			0.41														0.32			
Winnemucca, Nev.	28			0.30														0.14			
Wytheville, Va.	12			1.49														0.52			
Yankton, S. Dak.	16–17			0.31														*			
Yellowstone Park, Wyo.	28–29			0.31														*			

† Estimated.

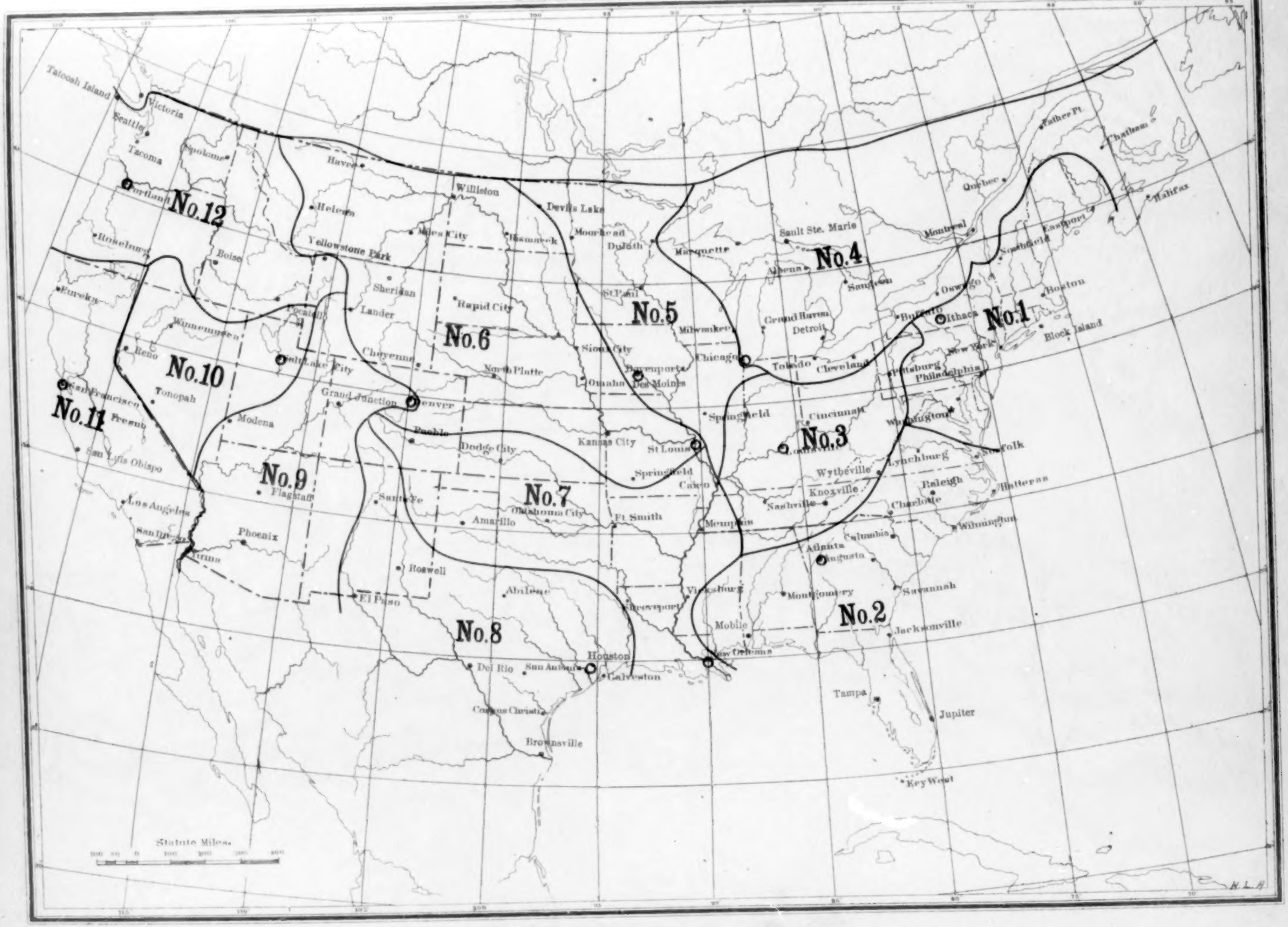
TABLE III.—*Data furnished by the Canadian Meteorological Service, April, 1910.*

Stations.	Pressure. Actual, reduced to mean of 24 hours.	Pressure. Sea level, reduced to mean of 24 hours.	Pressure. Departure from normal.	Temperature. Mean.	Temperature. Departure from normal.	Temperature. Mean maximum.	Temperature. Mean minimum.	Precipitation. Total.	Precipitation. Departure from normal.	Precipitation. Total snowfall.
	Ins.	*Ins.*	*Ins.*	°	°	°	°	*Ins.*	*Ins.*	*Ins.*
St. Johns, N. F.	29.84	29.98	+.09	38.2	+ 3.7	44.5	32.0	1.65	−2.51	2.0
Sydney, C. B. I.	29.97	30.01	+.12	39.8	+ 4.8	46.9	32.7	3.50	−0.35	T.
Halifax, N. S.	29.90	30.01	+.05	42.4	+ 4.6	49.7	35.0	8.21	+4.03	0.5
Grand Manan, N. B.	29.92	29.97	+.03	43.0	+ 3.8	49.6	36.5	3.12	+0.16	0.0
Yarmouth, N. S.	29.92	29.99	+.03	44.2	+ 5.3	51.0	37.3	5.59	+2.20	0.2
Charlottetown, P. E. I.	29.94	29.98	+.08	42.5	+ 7.3	49.2	35.8	4.09	+1.44	14.6
Chatham, N. B.	29.97	29.99	+.09	42.2	+ 6.7	50.9	33.4	5.86	+3.23	7.8
Father Point, Que.	29.92	29.94	+.01	36.1	+ 2.9	41.5	30.6	2.53	+0.95	1.0
Quebec, Que.	29.62	29.95	−.04	41.3	+ 6.2	49.0	33.7	2.99	+0.90	1.4
Montreal, Que.	29.73	29.94	−.06	47.0	+ 7.3	54.9	39.2	2.66	+0.42	1.2
Stonecliffe, Ont *										
Ottawa, Ont.	29.67	29.99	−.03	47.5	+ 7.5	56.4	38.6	2.17	+0.67	0.2
Kingston, Ont.	29.63	29.94	−.08	46.5	+ 6.5	55.1	37.9	2.77	+0.98	0.3
Toronto, Ont.	29.53	29.91	−.11	46.9	+ 6.1	55.3	38.4	5.01	+2.64	1.3
White River, Ont.	28.62	29.95	−.09	39.3	+ 6.3	51.6	27.1	1.41	+0.16	0.2
Port Stanley, Ont.	29.26	29.92	−.10	44.5	+ 3.5	53.4	35.6	2.81	+0.34	0.0
Southampton, Ont.	29.24			44.1	+ 5.4	52.8	35.4	2.71	+0.91	1.5
Parry Sound, Ont.	29.23	29.93	−.09	45.6	+ 8.0	56.3	35.0	2.80	+0.89	3.0
Port Arthur, Ont.	29.25	29.96	−.07	39.9	+ 6.4	49.1	30.7	1.62	−0.10	2.7
Winnipeg, Man.	29.13	29.97	−.05	42.9	+ 7.0	55.6	30.2	1.49	+0.44	10.7
Minnedosa, Man.	28.13	29.96	−.05	42.8	+ 6.8	56.3	29.2	1.46	+0.40	1.6
Qu' Appelle, Assin.	27.64	29.88	−.11	44.4	+ 7.0	57.7	31.0	0.81	−0.24	0.0
Medicine Hat, Alberta	27.63	29.90	−.02	54.7	+10.2	69.5	39.8	0.20	−0.54	0.0
Swift Current, Sask.	27.36	29.93	−.03	49.6	+ 8.3	63.7	35.5	0.86	−0.07	T.
Calgary, Alberta	26.36	29.90	.00	46.0	+ 6.4	60.6	31.4	0.30	−0.34	2.0
Banff, Alberta				41.7	+ 6.4	53.2	30.2	1.19	+0.11	9.0
Edmonton, Alberta	27.61	29.91	+.02	45.1	+ 5.2	61.2	29.0	0.38	−0.50	1.8
Prince Albert, Sask.	28.39	29.96	−.02	41.8	+ 5.7	53.3	30.3	0.40	−0.43	3.0
Battleford, Sask.	28.18	29.93	−.04	45.6	+ 8.4	59.9	31.2	0.19	−0.28	0.0
Kamloops, B. C.	28.66	29.93	.00	52.4	+ 3.5	64.7	40.1	0.12	−0.27	0.0
Victoria, B. C.	29.98	30.08	+.07	47.6	+ 0.8	55.0	40.2	1.69	−0.68	0.0
Barkerville, B. C.	25.50	29.81	−.05	35.9	+ 2.8	45.3	26.5	1.50	−0.32	15.0
Dawson, Yukon	28.68			25.7		38.9	12.5	1.68		16.8
Hamilton, Bermuda	29.95	30.11	+.06	65.4	+ 1.5	69.9	60.8	9.30	+5.12	0.0

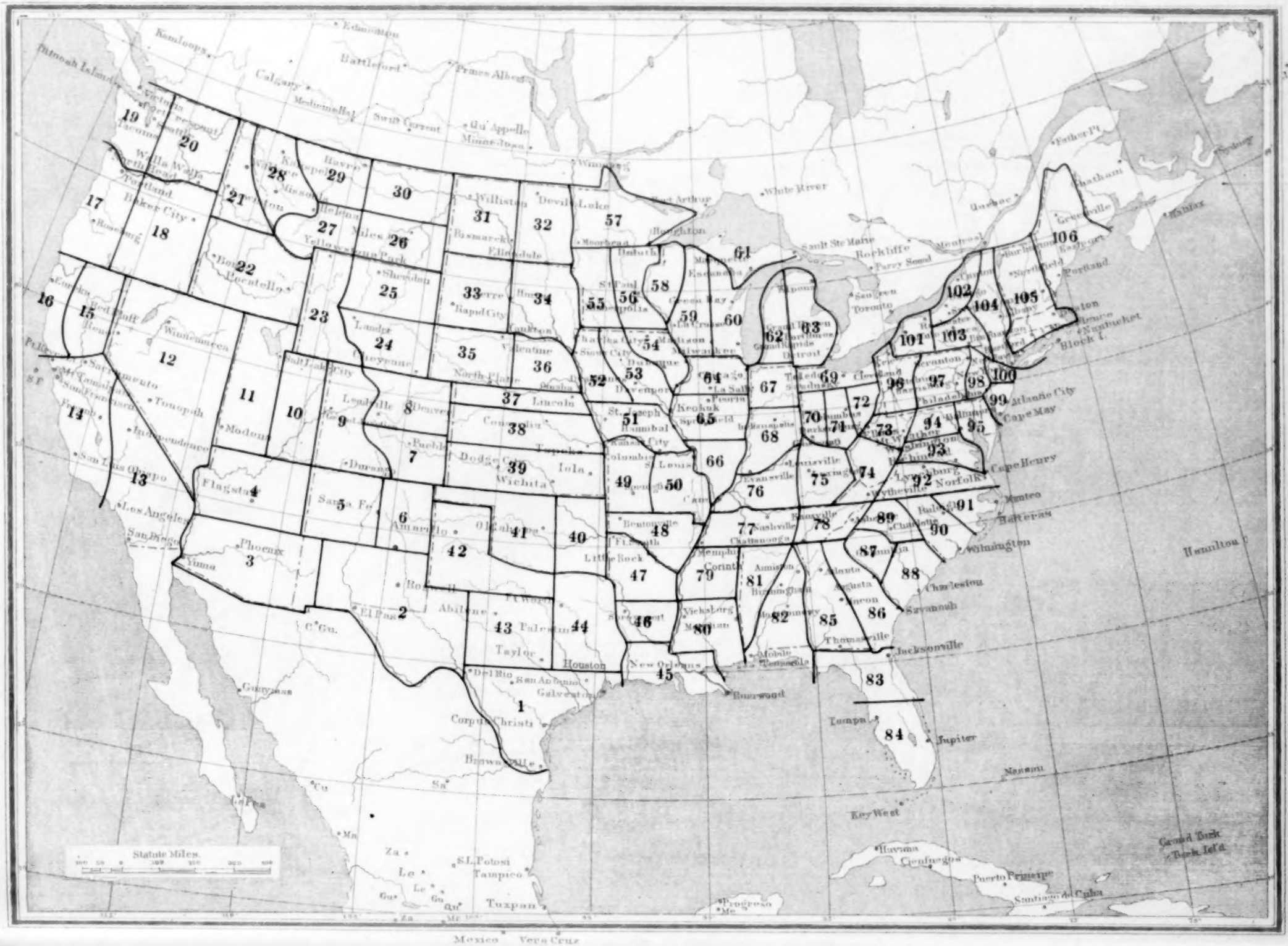
* Name changed from Rockliffe.

Climatological Districts of the United States.

Climatological Districts of the United States.

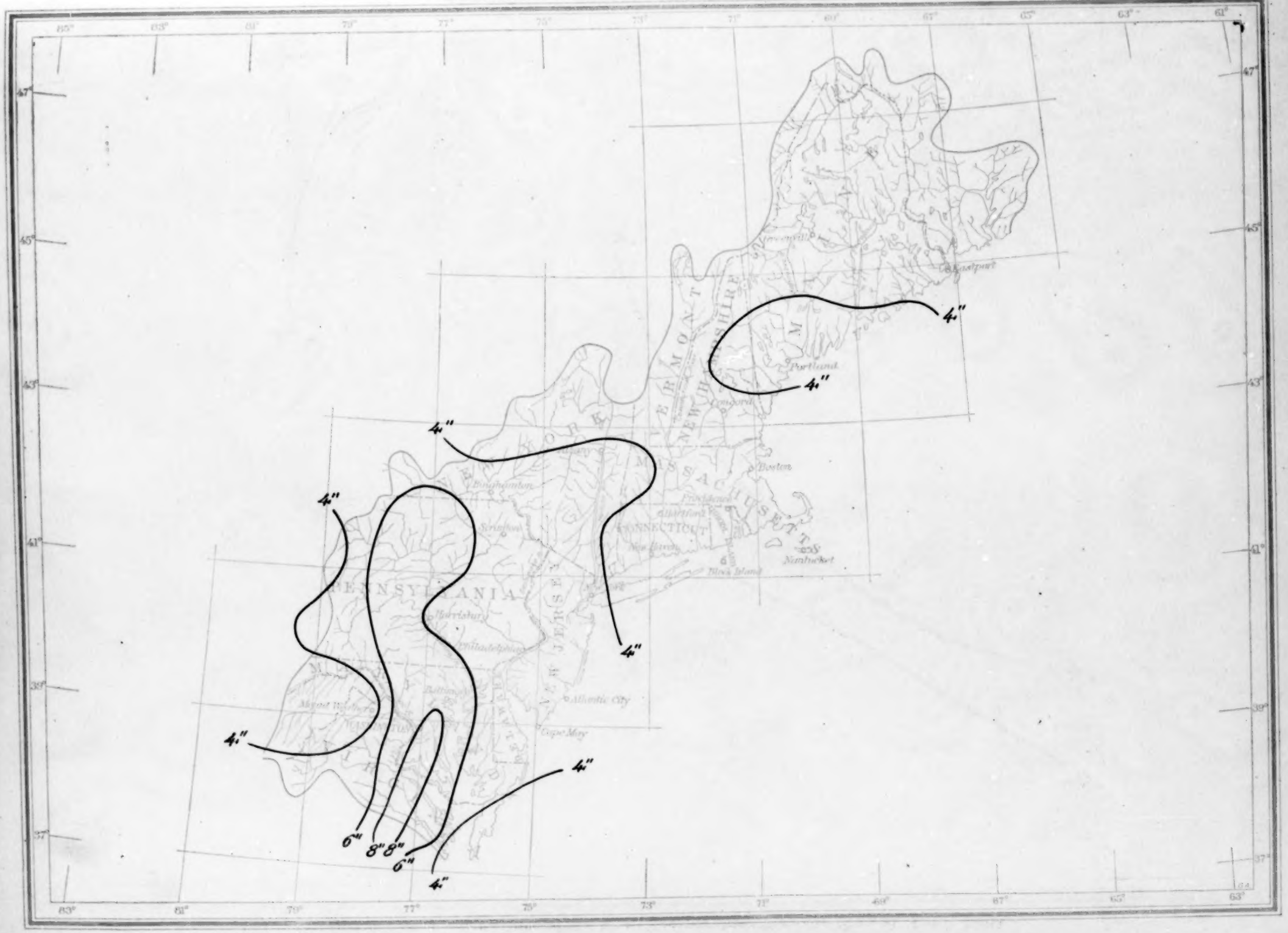


106 Climatological Sections in the United States.

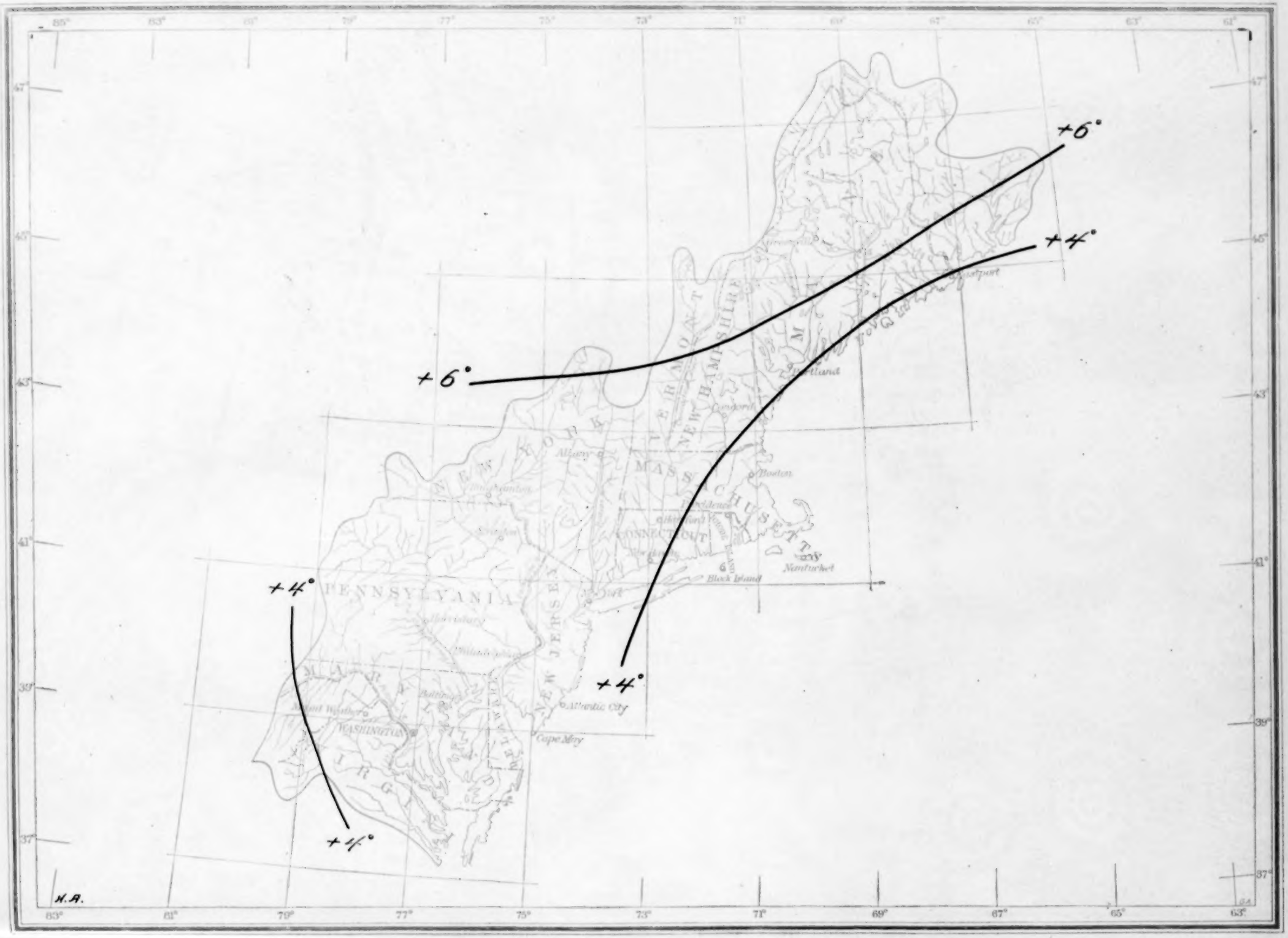

Barkerville
Edmonton
Kamloops
Battleford
Prince Albert
Calgary
Medicine Hat
Swift Current
Qu'Appelle
Minnedosa
Winnipeg
Victoria
Tatoosh Island
Tacoma
Seattle
Port Townsend
Walla Walla
Portland
Baker City
Roseburg
Eureka
Red Bluff
Reno
Winnemucca
Sacramento
San Francisco
SF
Toyopah
Independence
Modena
Salt Lake City
Ogden
Beaver
Pueblo
Leadville
Denver
Durango
Flagstaff
Phoenix
Yuma
Los Angeles
San Diego
Santa Fe
Albuquerque
Amarillo
El Paso
Roswell
Abilene
Fort Worth
Dallas
Waco
Austin
Houston
Galveston
Del Rio
San Antonio
Corpus Christi
Brownsville
Laredo
Eagle Pass
Guaymas
La Paz
Mazatlan
Zacatecas
S.L.Potosi
Tampico
Tuxpan
Mexico
Vera Cruz
Progreso
Merida
Campeche
Tampa
Jupiter
Key West
Havana
Cienfuegos
Puerto Principe
Santiago de Cuba
Grand Turk
Turks Isl'd
Nassau
Hamilton
Bermuda
Cape Henry
Norfolk
Hatteras
Wilmington
Charleston
Savannah
Jacksonville
Pensacola
Mobile
Thomasville
Atlanta
Augusta
Macon
Columbus
Montgomery
Vicksburg
Meridian
New Orleans
Shreveport
Monroe
Little Rock
Fort Smith
Memphis
Corinth
Nashville
Chattanooga
Knoxville
Bristol
Asheville
Charlotte
Raleigh
Wytheville
Lynchburg
Roanoke
Richmond
Petersburg
Norfolk
Cape Henry
Cape May
Atlantic City
Block I.
Nantucket
Portland
Boston
Worcester
Albany
Utica
Syracuse
Rochester
Buffalo
Erie
Scranton
Philadelphia
Baltimore
Washington
Harrisburg
Pittsburg
Cleveland
Toledo
Detroit
Sandusky
Columbus
Zanesville
Parkersburg
Huntington
Louisville
Evansville
Cairo
Paducah
Nashville
Memphis
Corinth
Vicksburg
Meridian
Montgomery
Augusta
Macon
Atlanta

Mexico Vera Cruz

District No. 1.—Total Precipitation, April, 1910.



District No. 1.—Departure of the Mean Temperature from the Normal, April, 1910.



District No. 2.—Total Precipitation, April, 1910.

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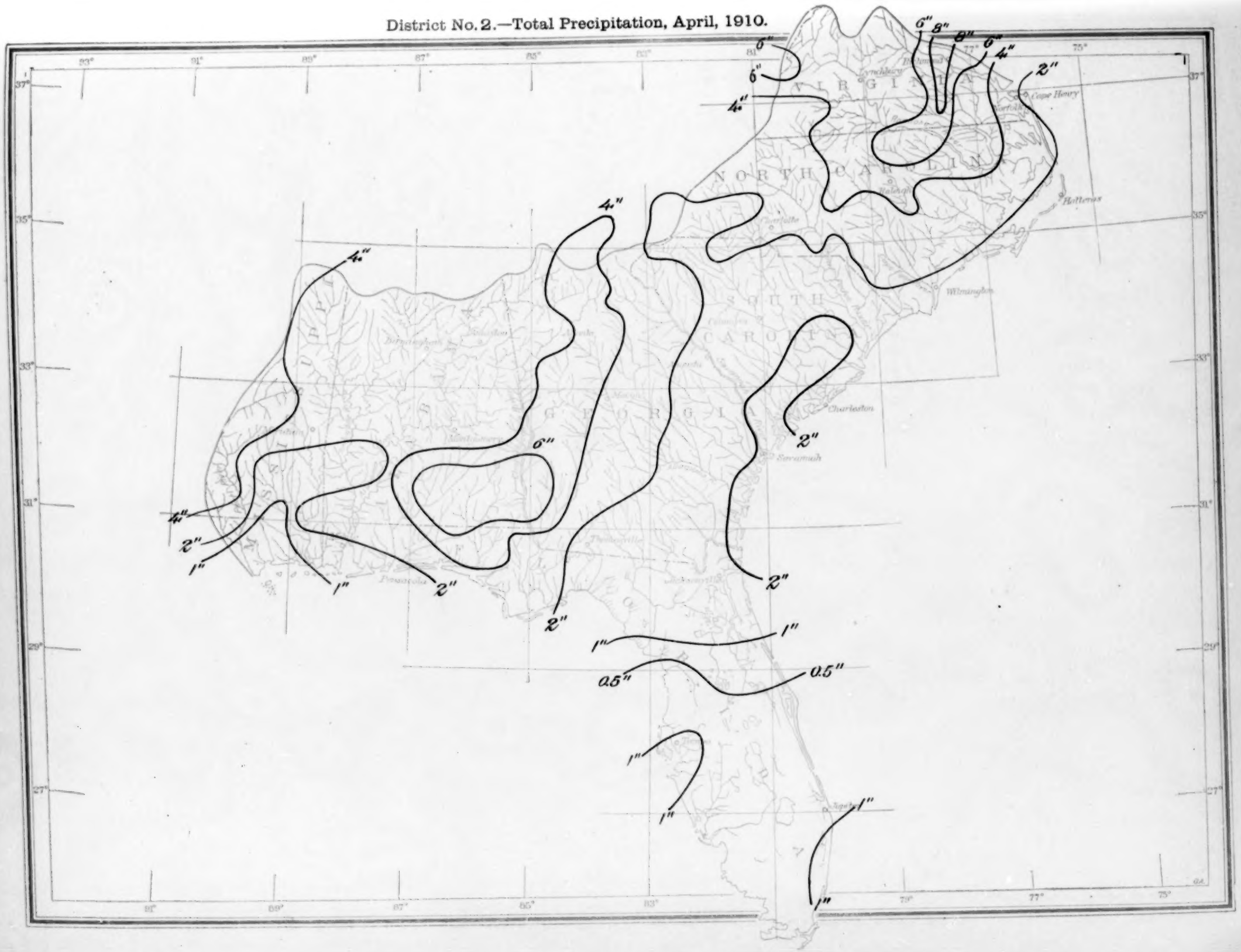
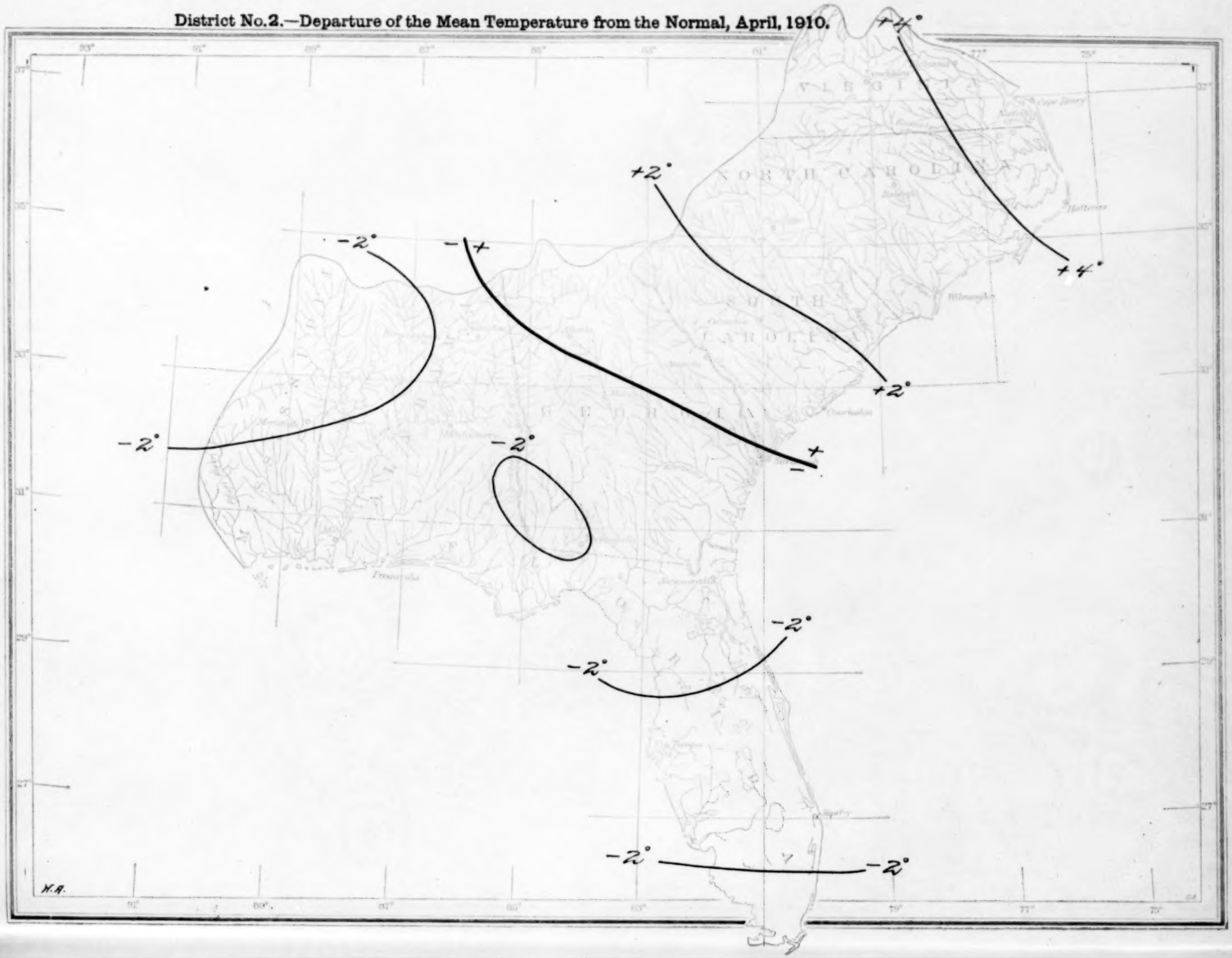
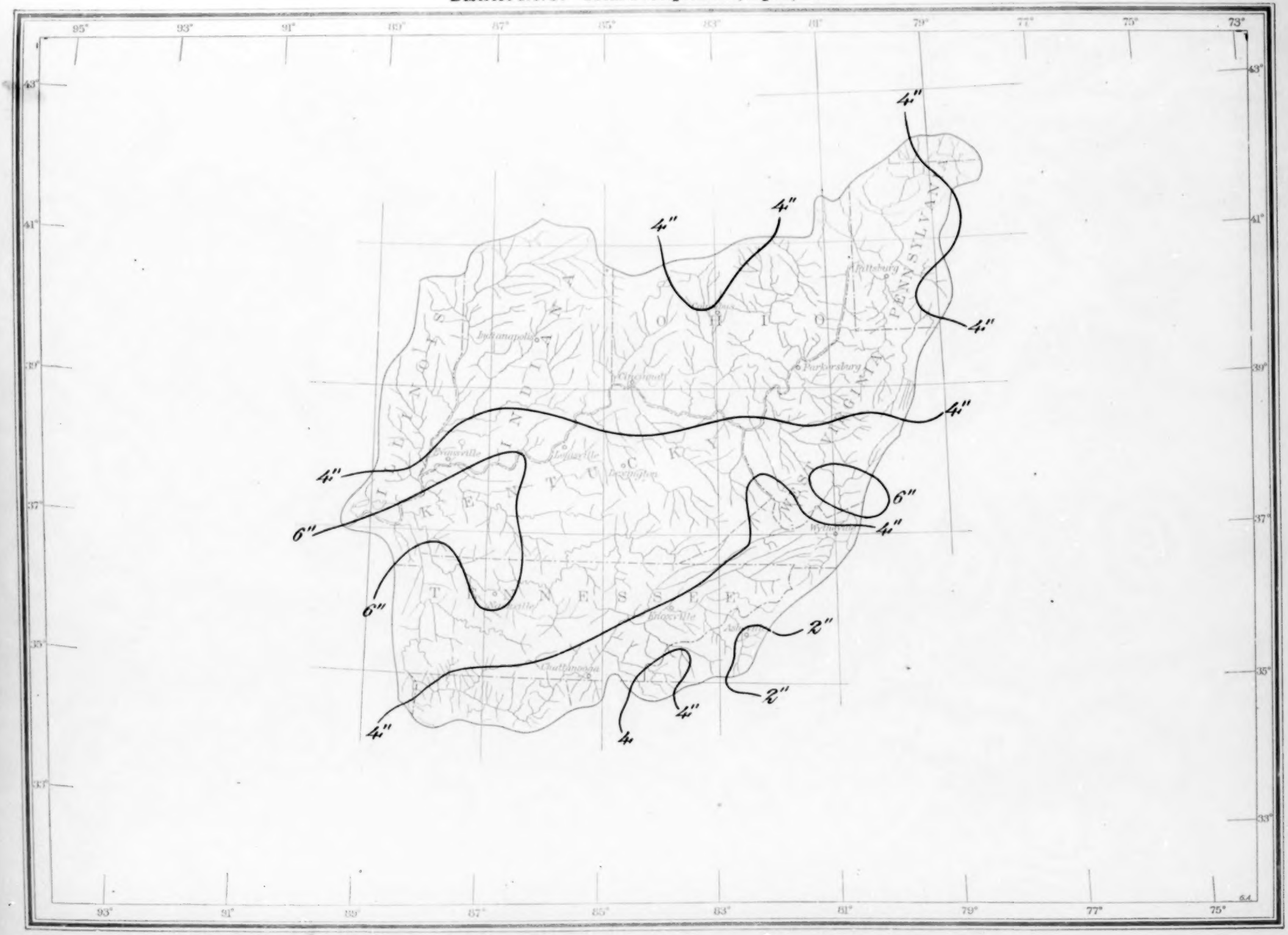


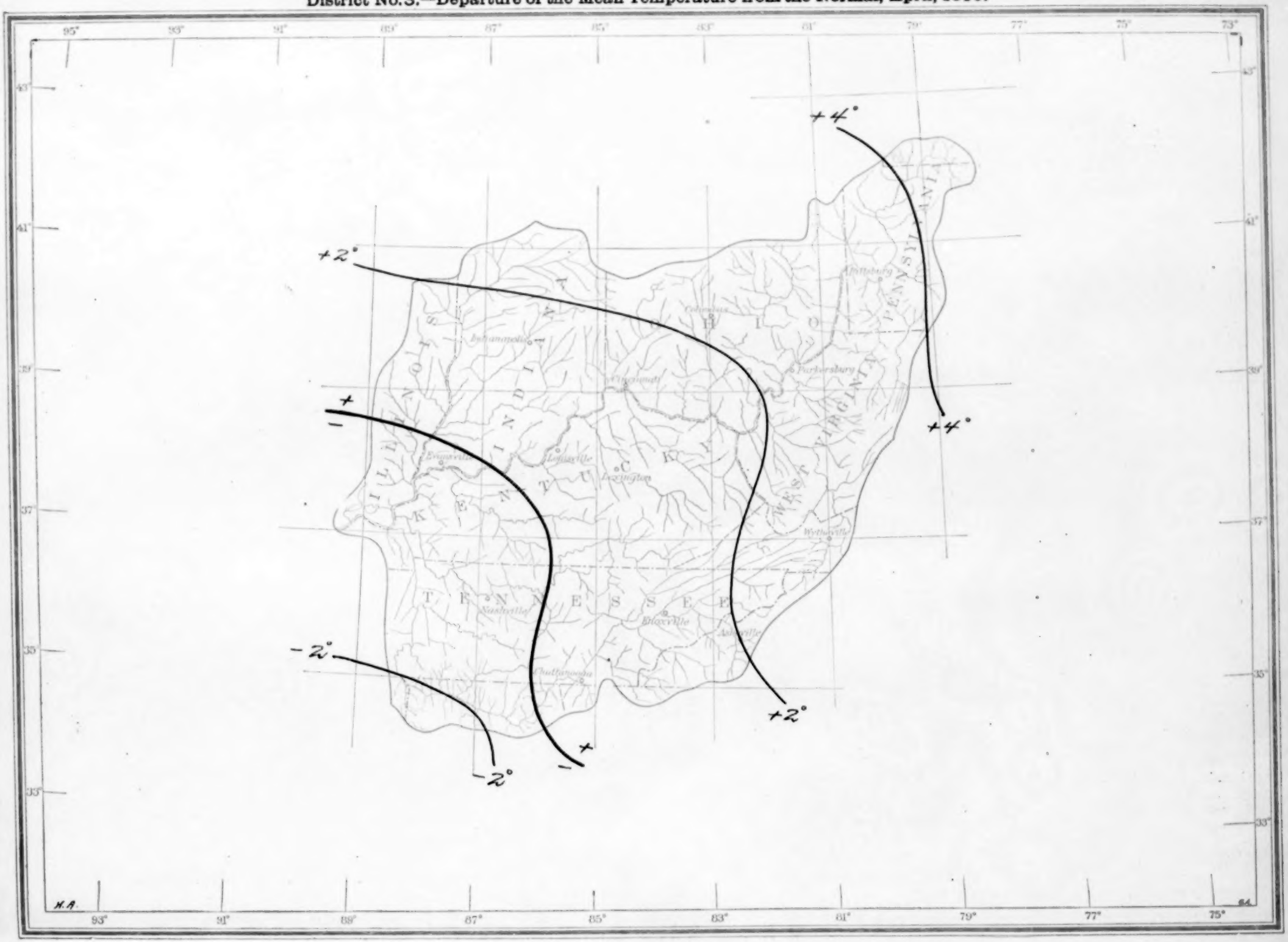
District No. 2.—Departure of the Mean Temperature from the Normal, April, 1910.


+4°
+2°
+4°
-2°
-+
+2°
-2°
-2°
-

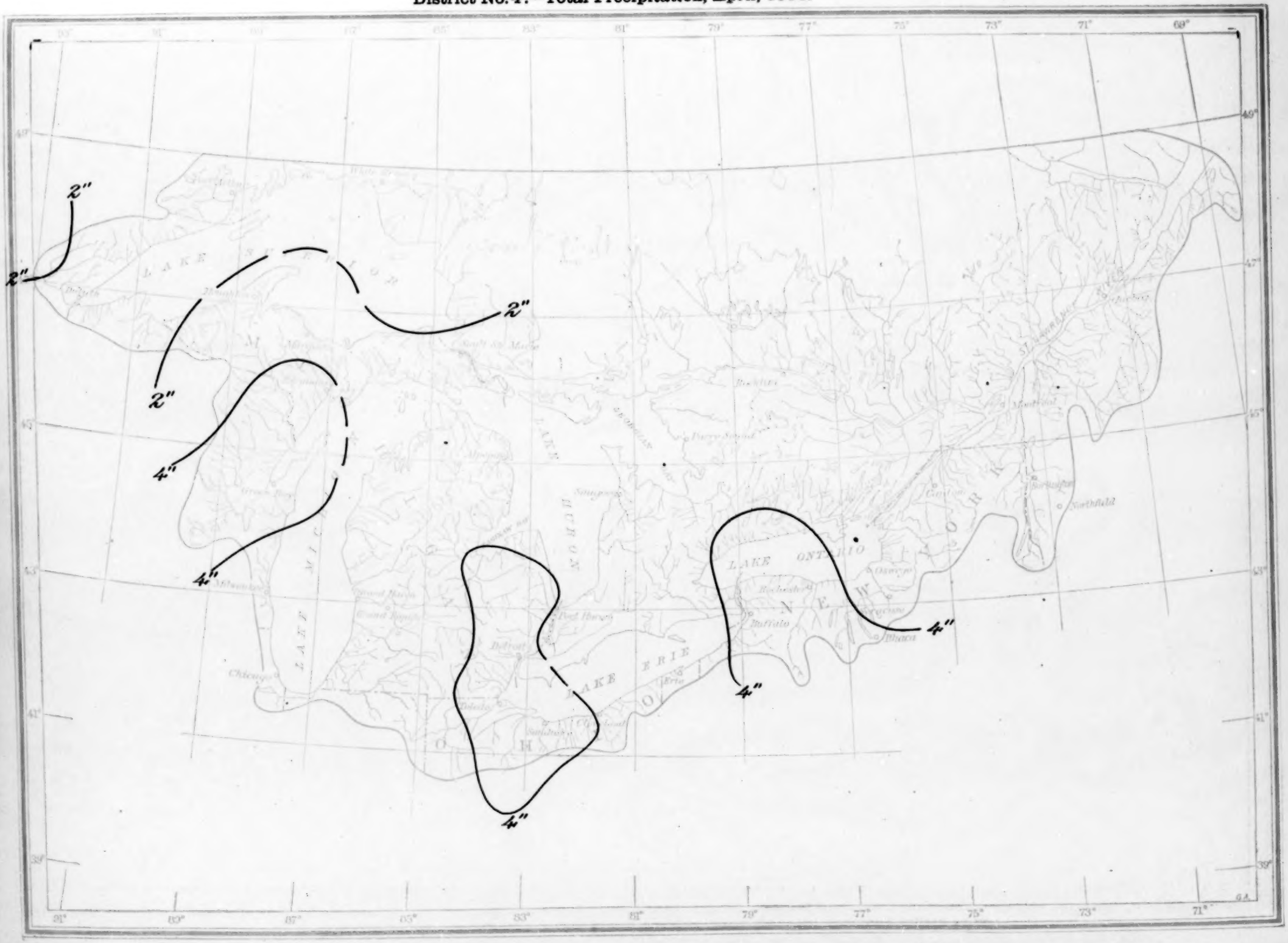
District No. 3.—Total Precipitation, April, 1910.



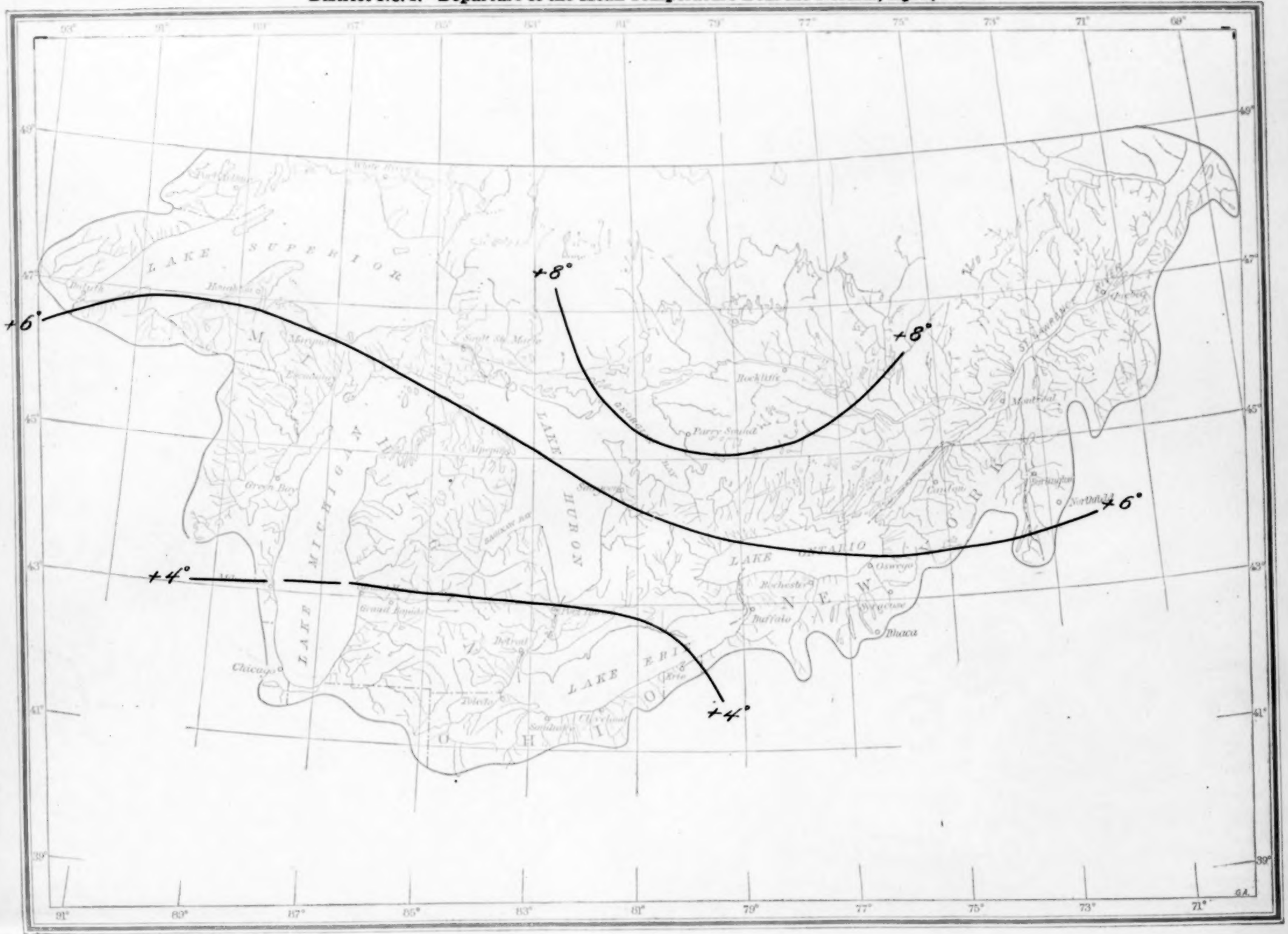
District No. 3.—Departure of the Mean Temperature from the Normal, April, 1910.



District No. 4.—Total Precipitation, April, 1910.



District No. 4.—Departure of the Mean Temperature from the Normal, April, 1910.



District No. 5.—Total Precipitation, April, 1910.

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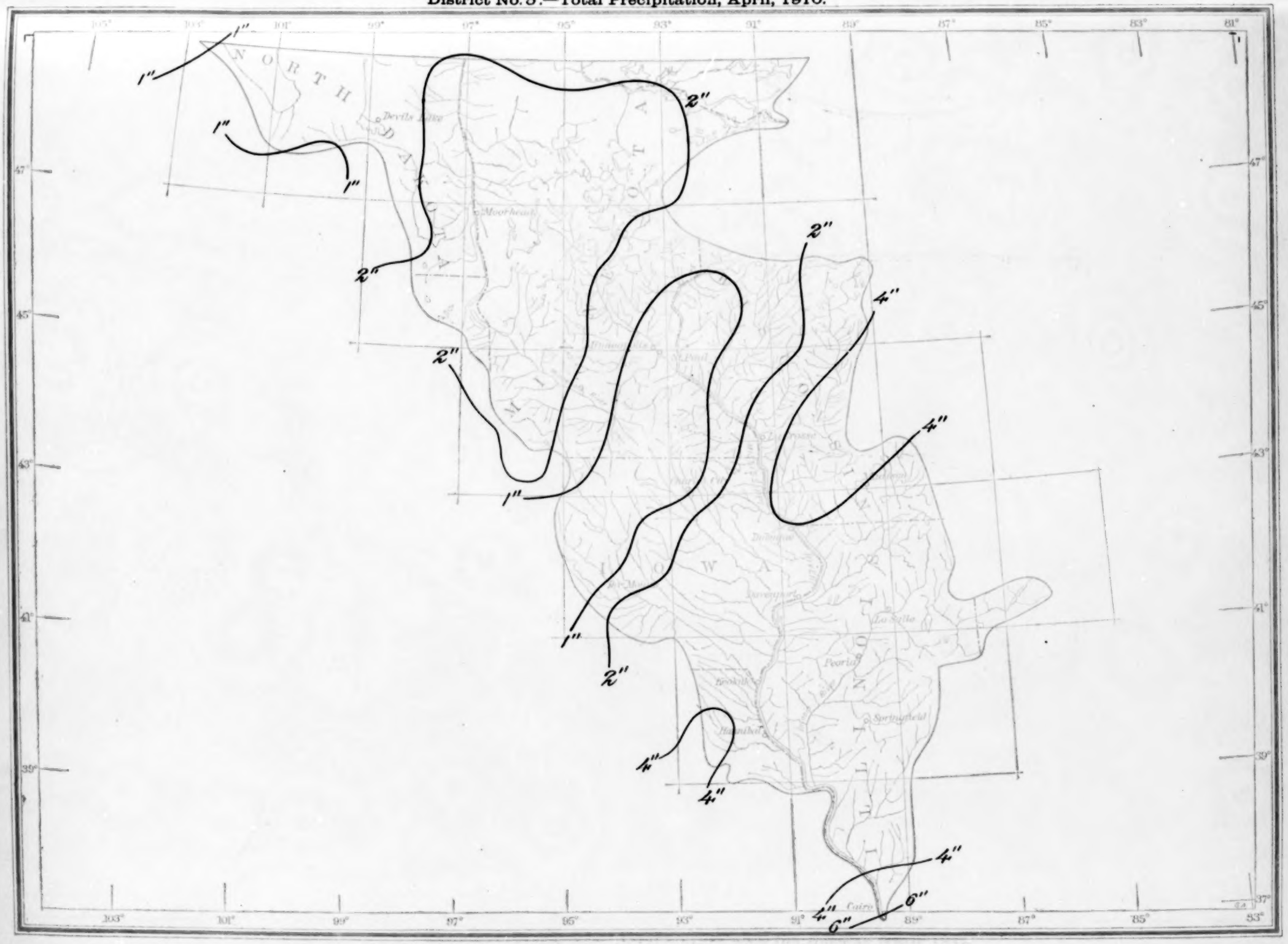

District No. 5.—Departure of the Mean Temperature from the Normal, April, 1910.

District No. 6.—Total Precipitation, April, 1910.

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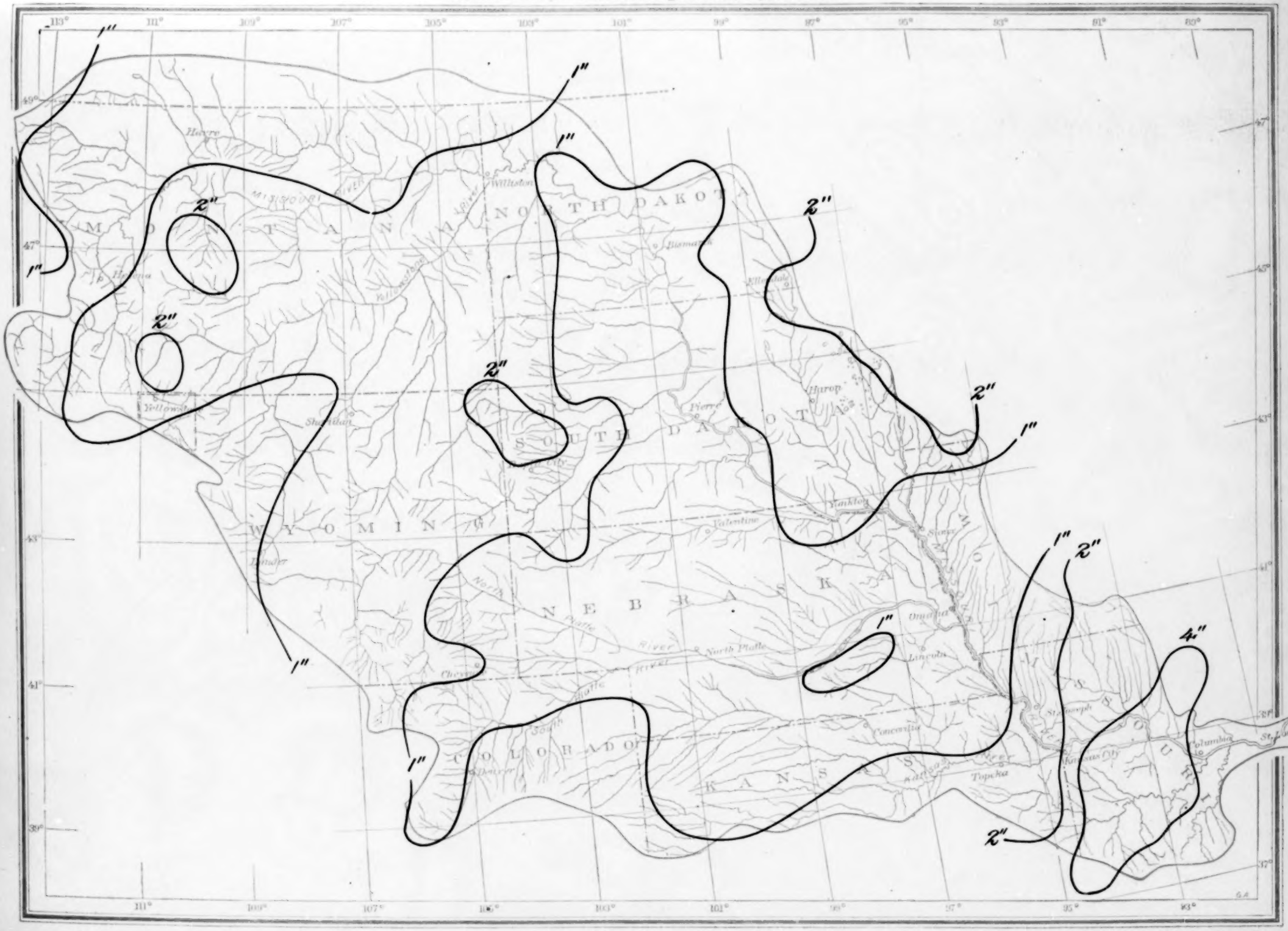
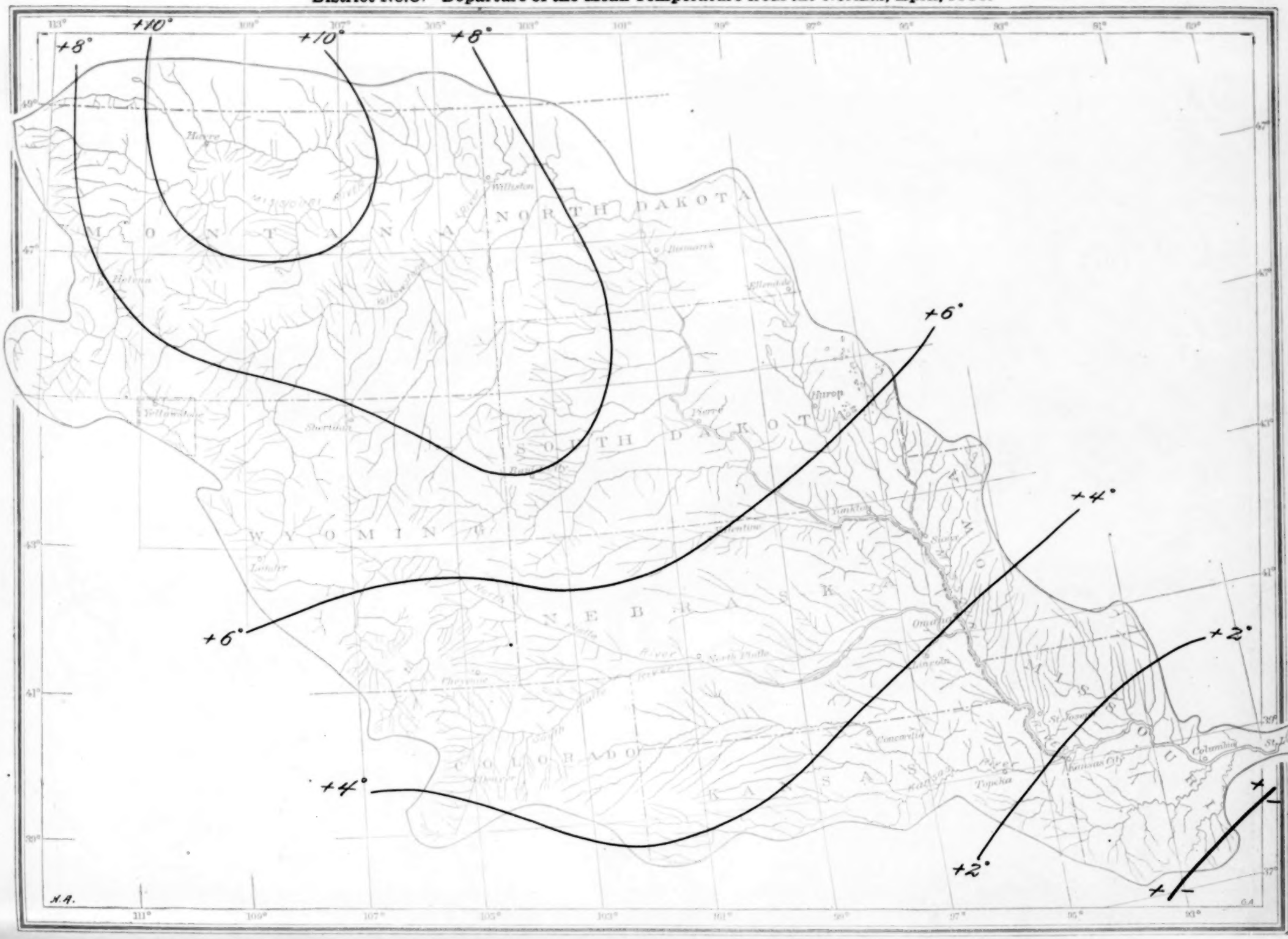
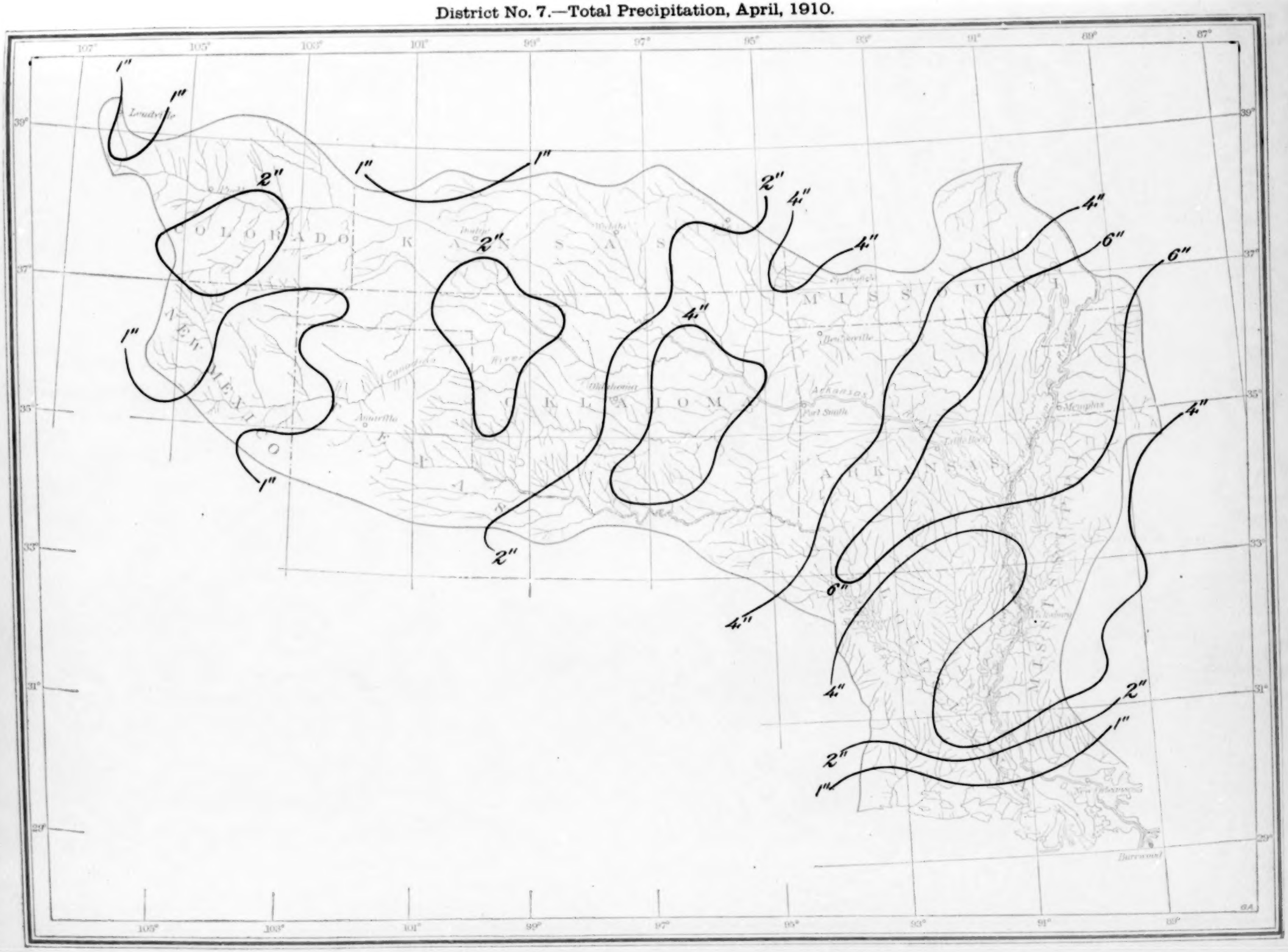


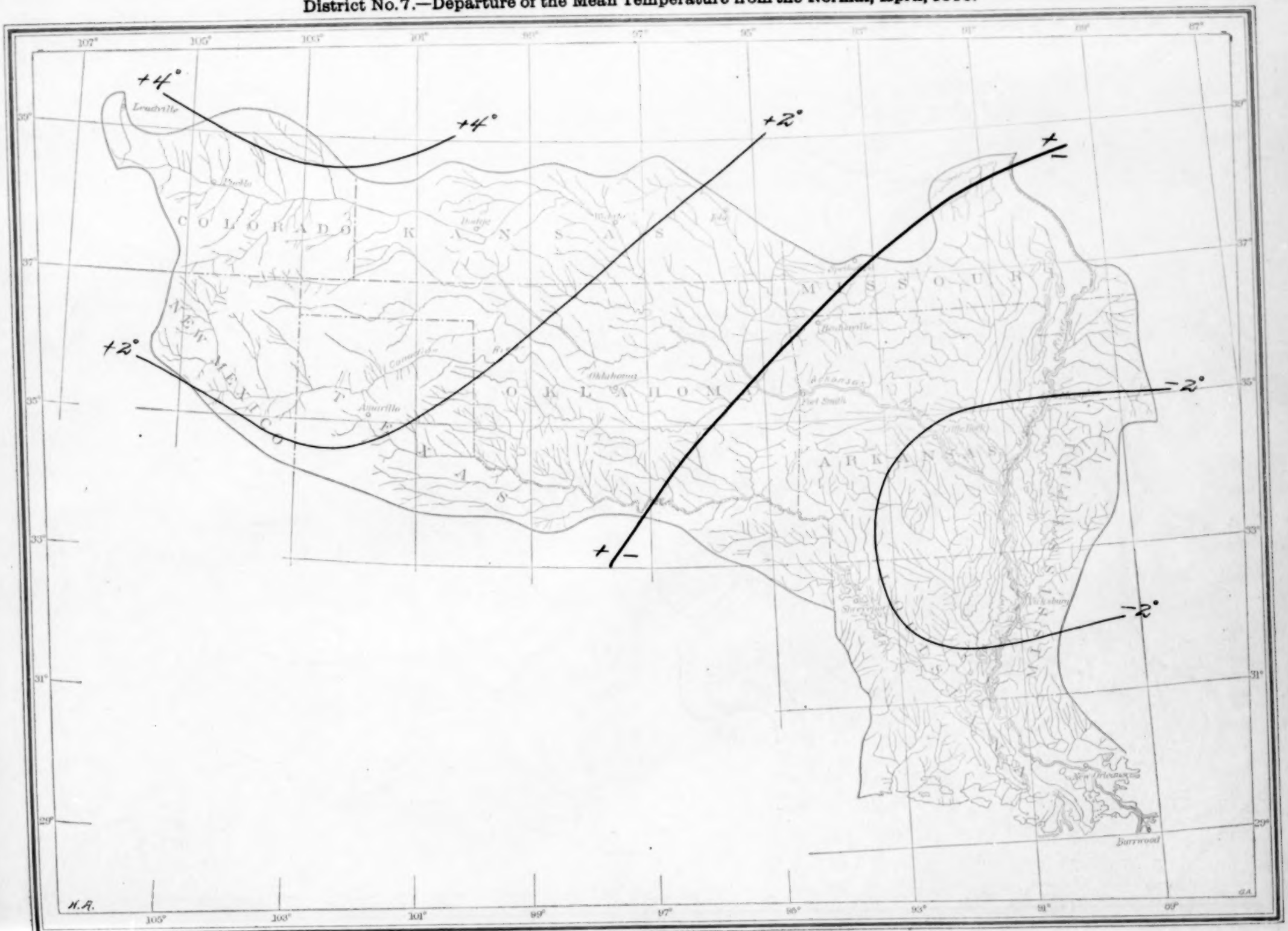
District No.6.—Departure of the Mean Temperature from the Normal, April, 1910.



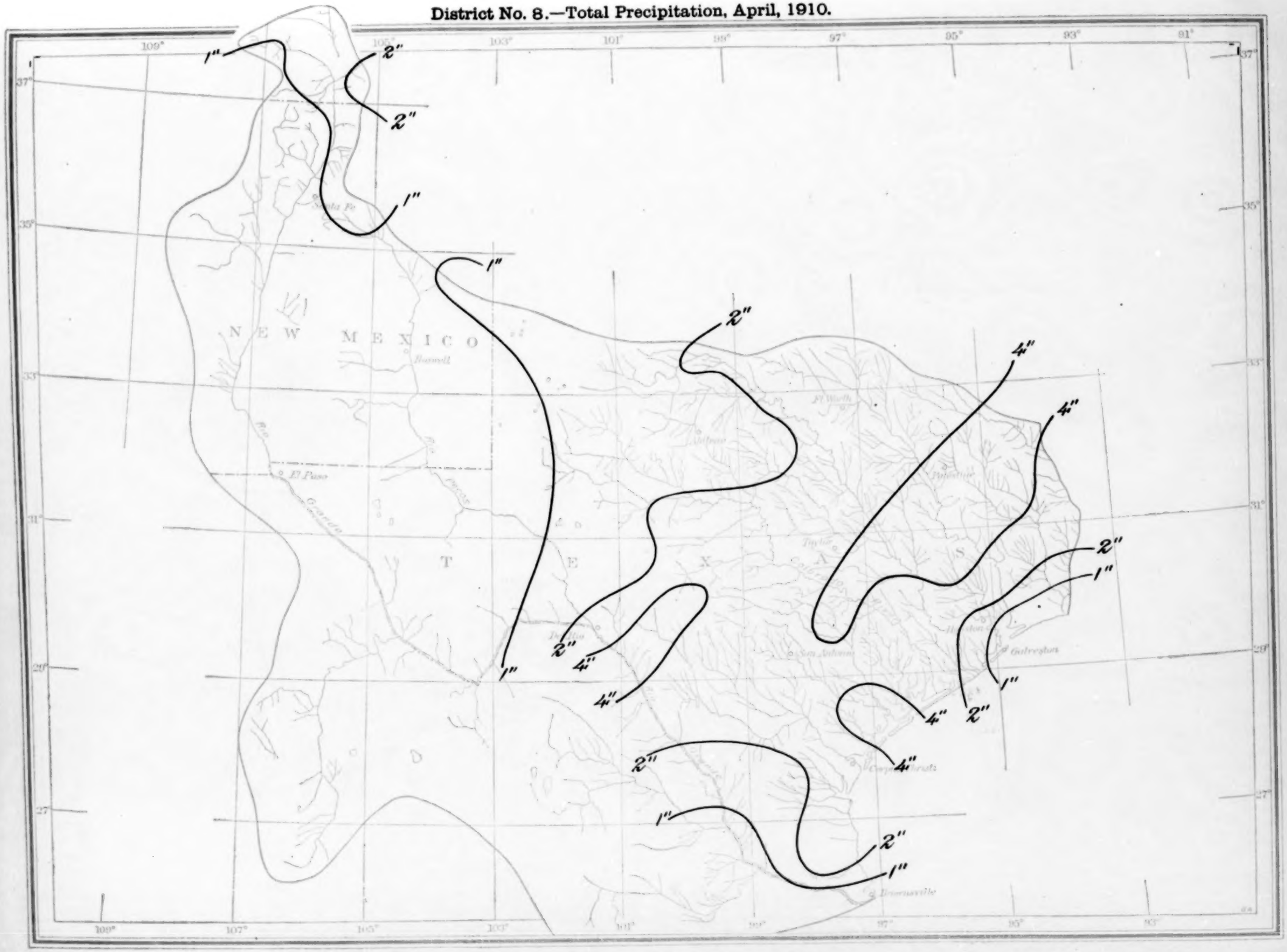
District No. 7.—Total Precipitation, April, 1910.



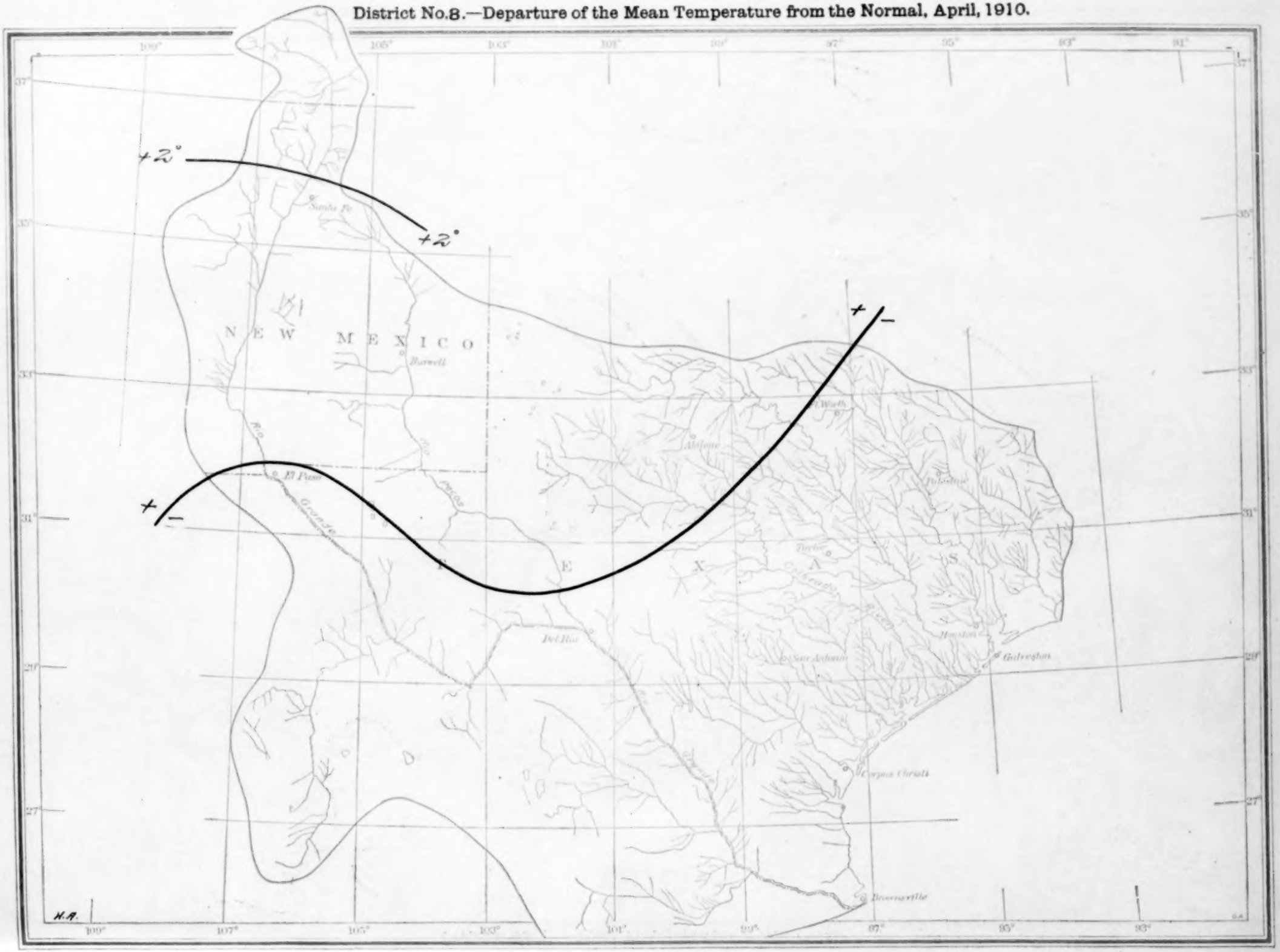
District No. 7.—Departure of the Mean Temperature from the Normal, April, 1910.



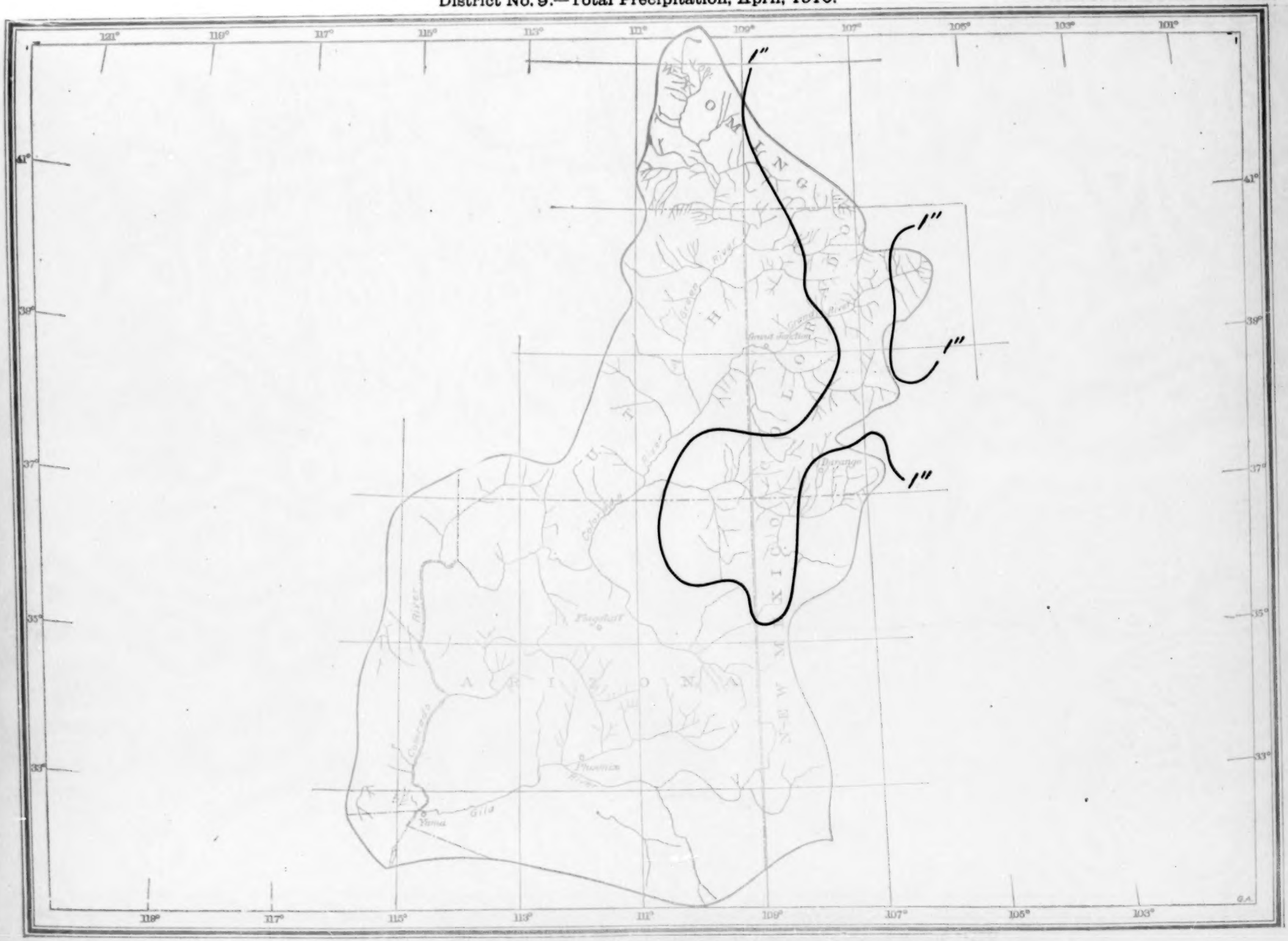
District No. 8.—Total Precipitation, April, 1910.



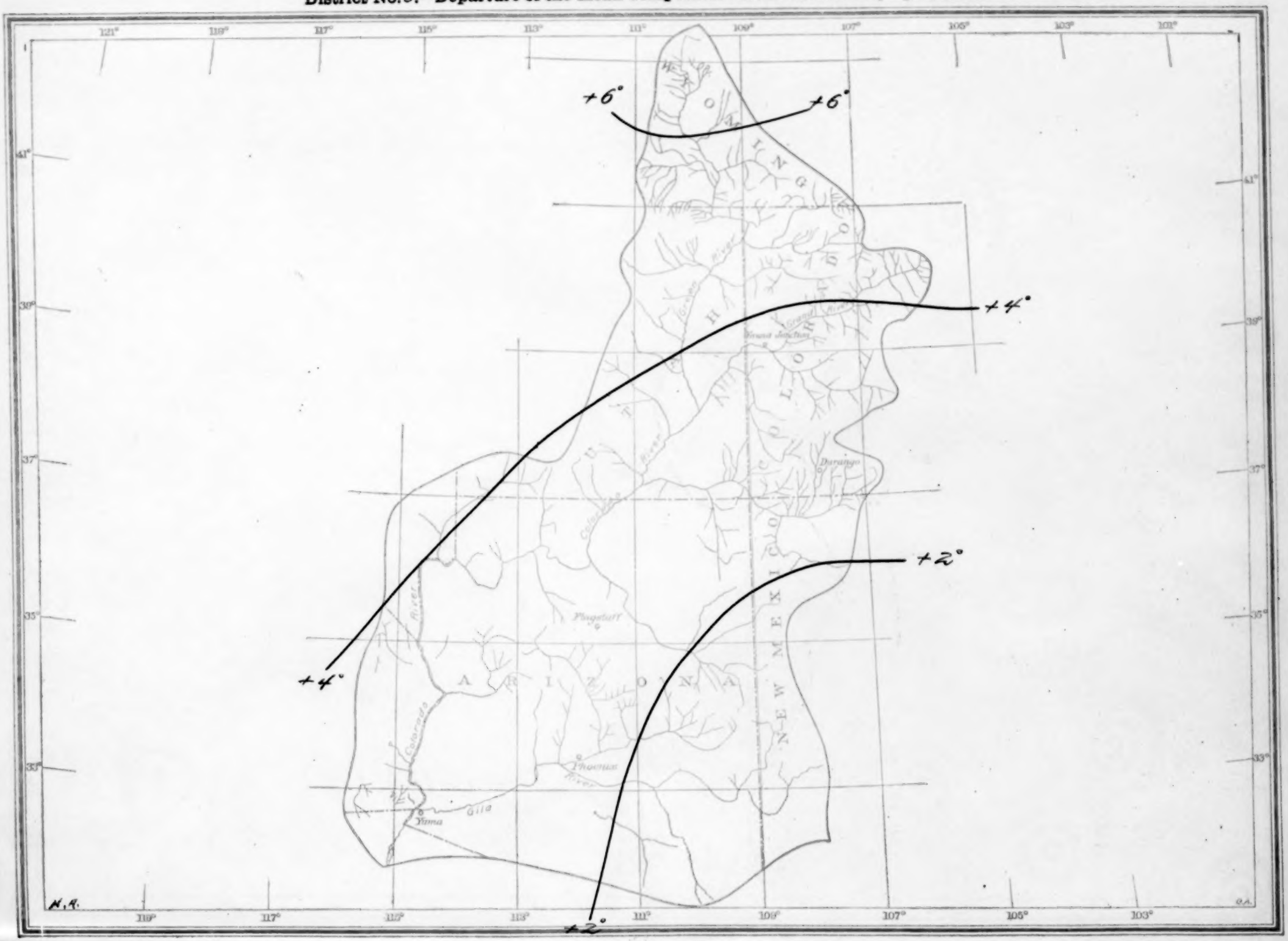
District No.8.—Departure of the Mean Temperature from the Normal, April, 1910.



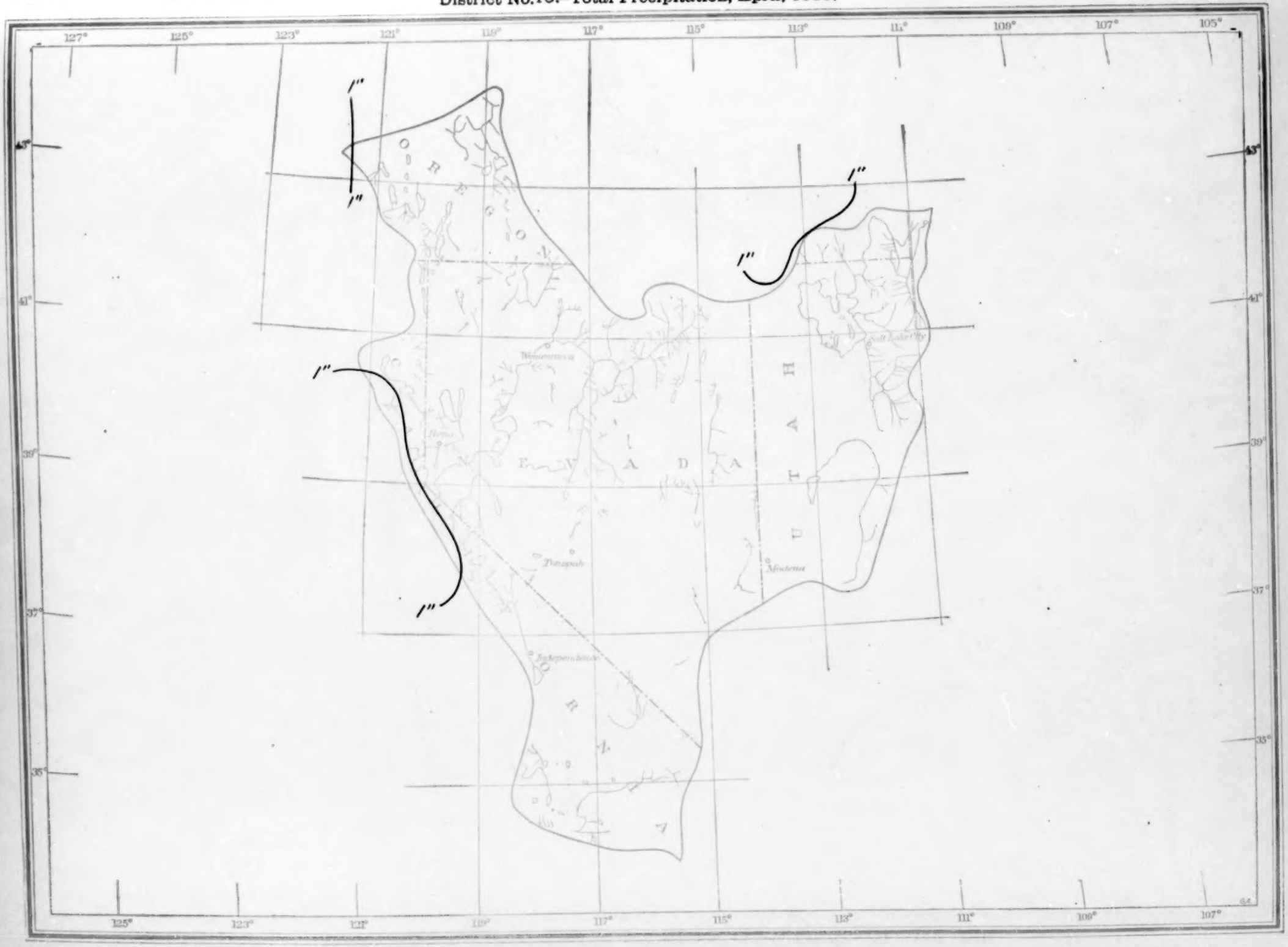
District No. 9.—Total Precipitation, April, 1910.



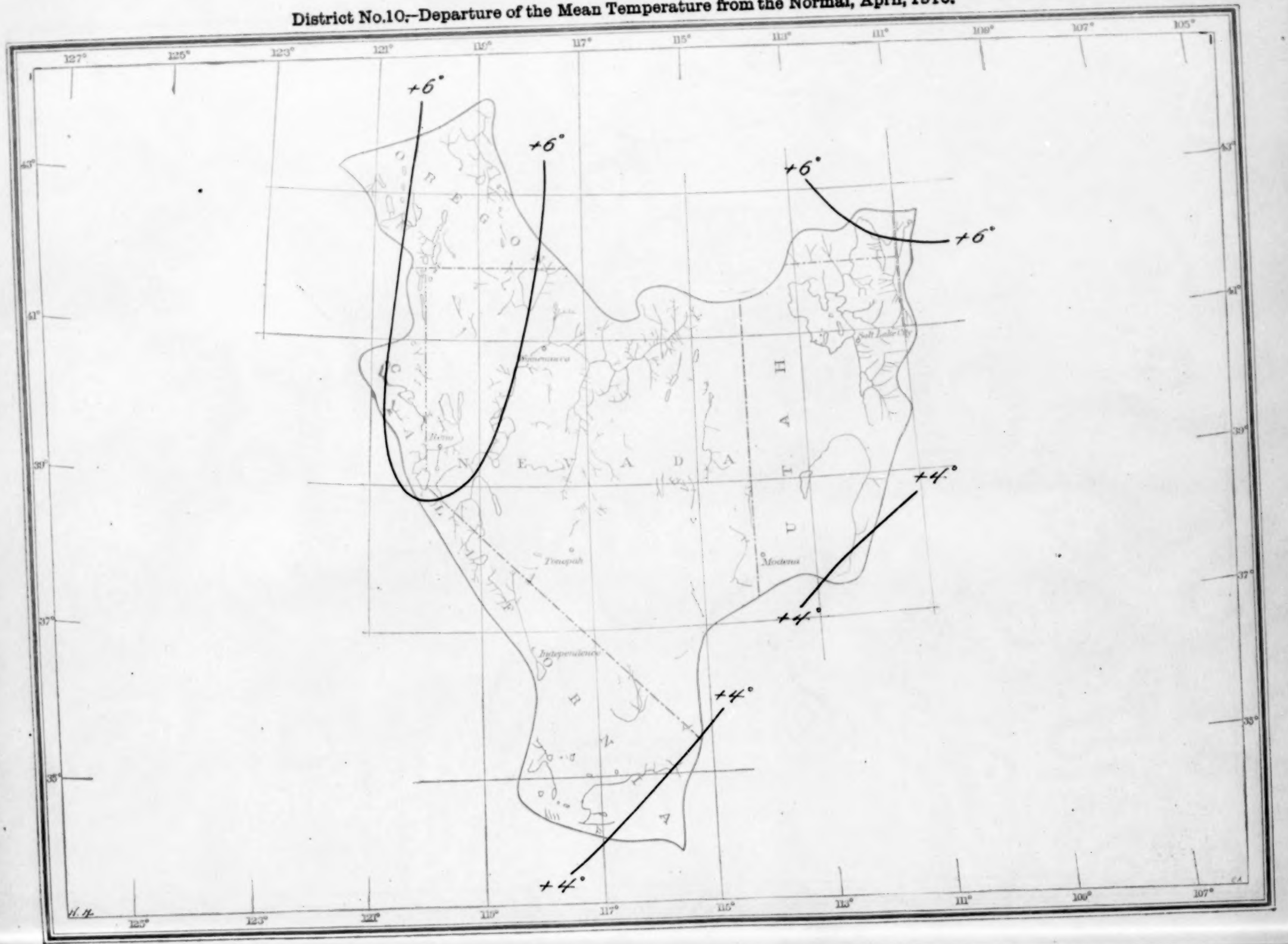
District No. 9.—Departure of the Mean Temperature from the Normal, April, 1910.



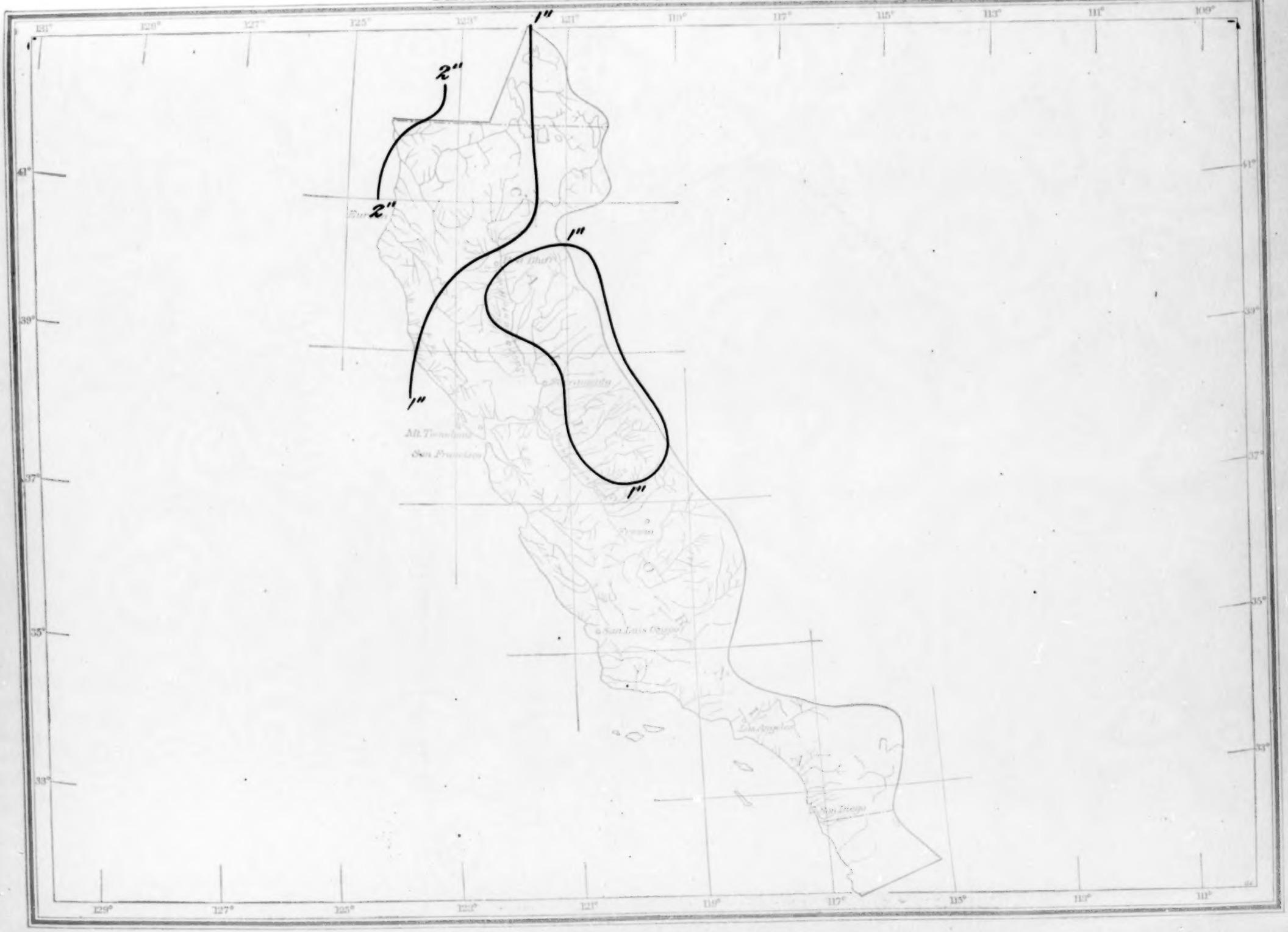
District No.10.—Total Precipitation, April, 1910.



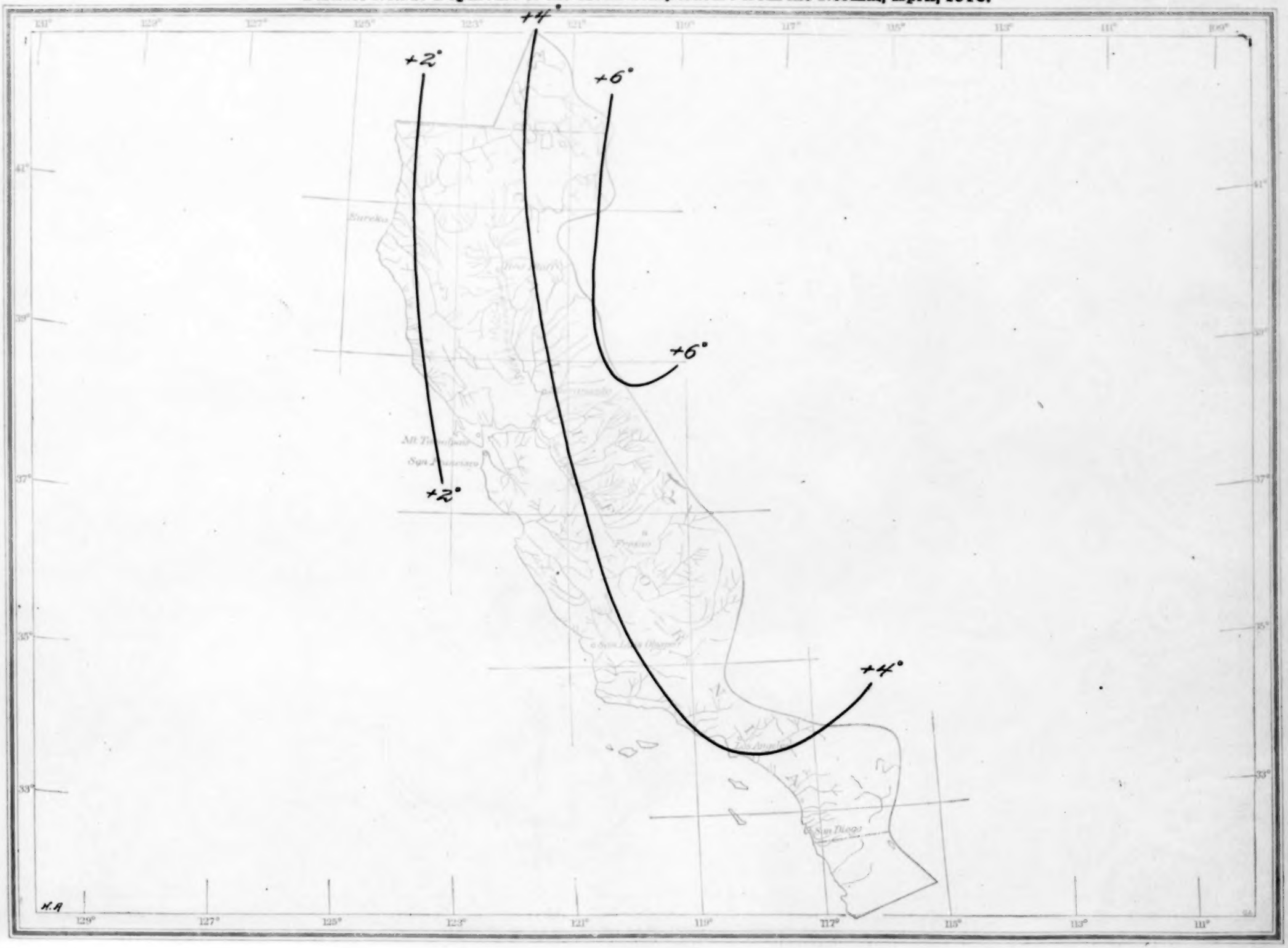
District No.10.--Departure of the Mean Temperature from the Normal, April, 1910.



District No. 11.—Total Precipitation, April, 1910.



District No. 11.—Departure of the Mean Temperature from the Normal, April, 1910.



District No. 12.—Total Precipitation, April, 1910.

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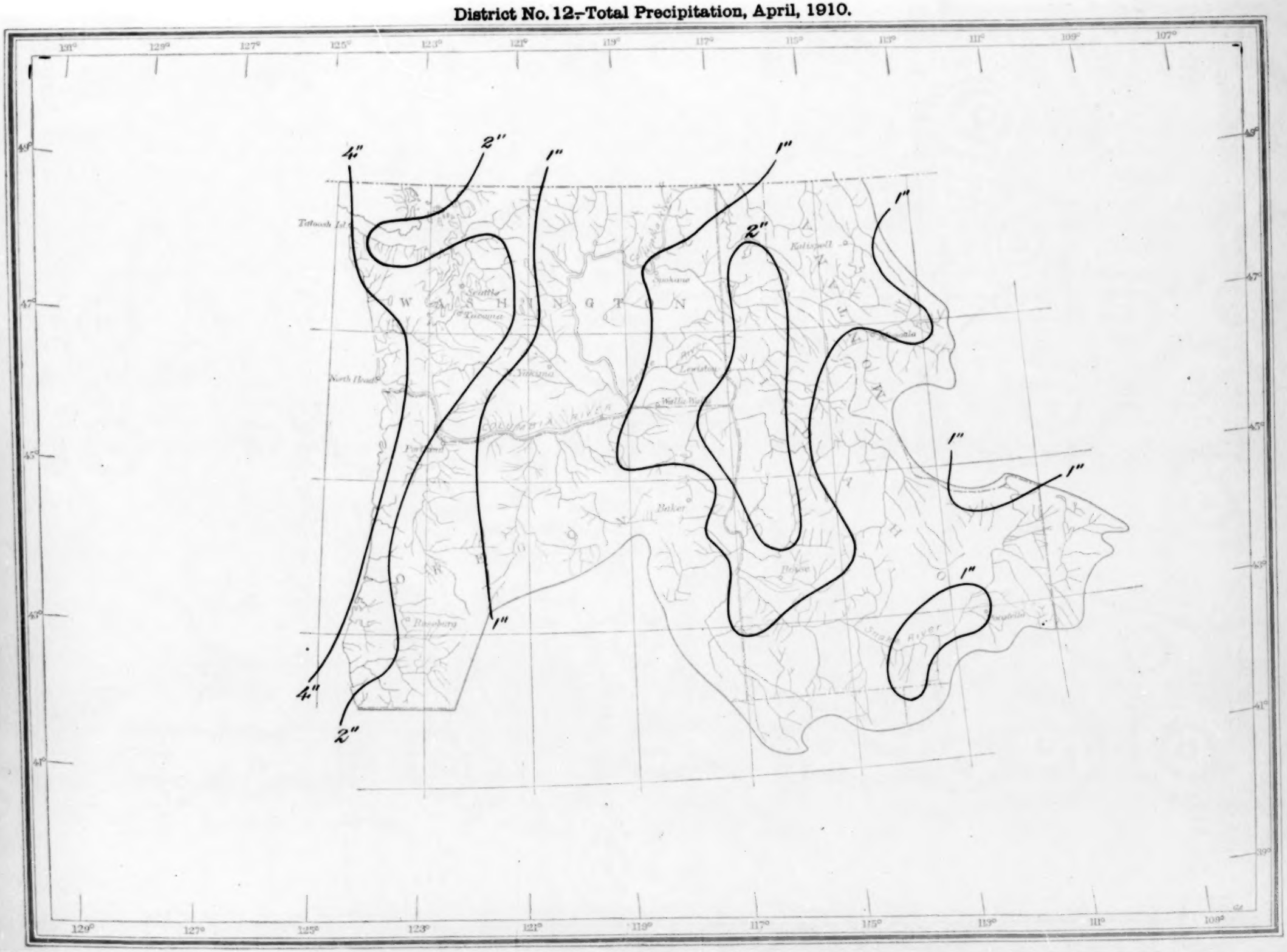

District No. 12.—Departure of the Mean Temperature from the Normal, April, 1910.

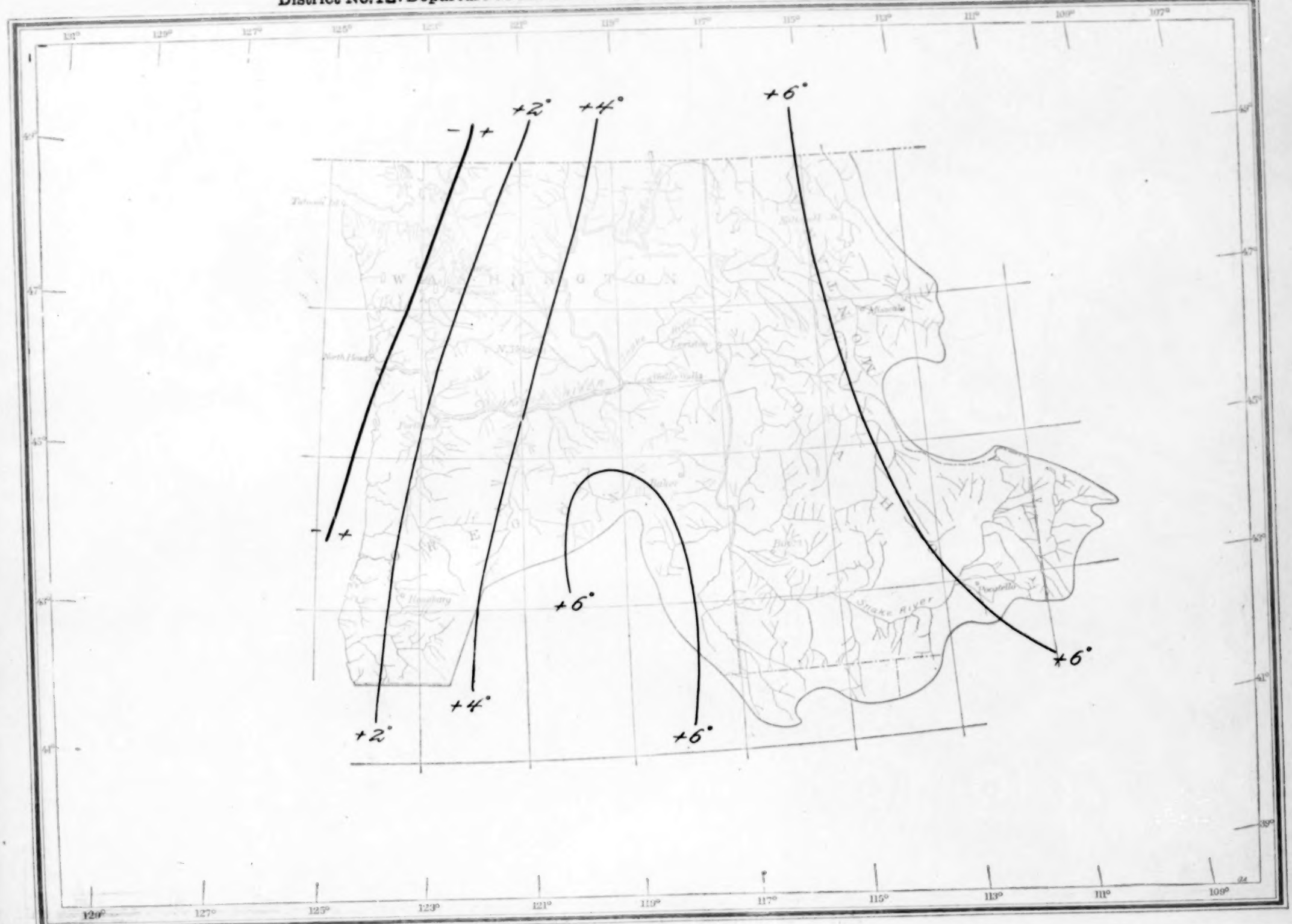

Chart I. Hydrographs of Several Principal Rivers, April, 1910.

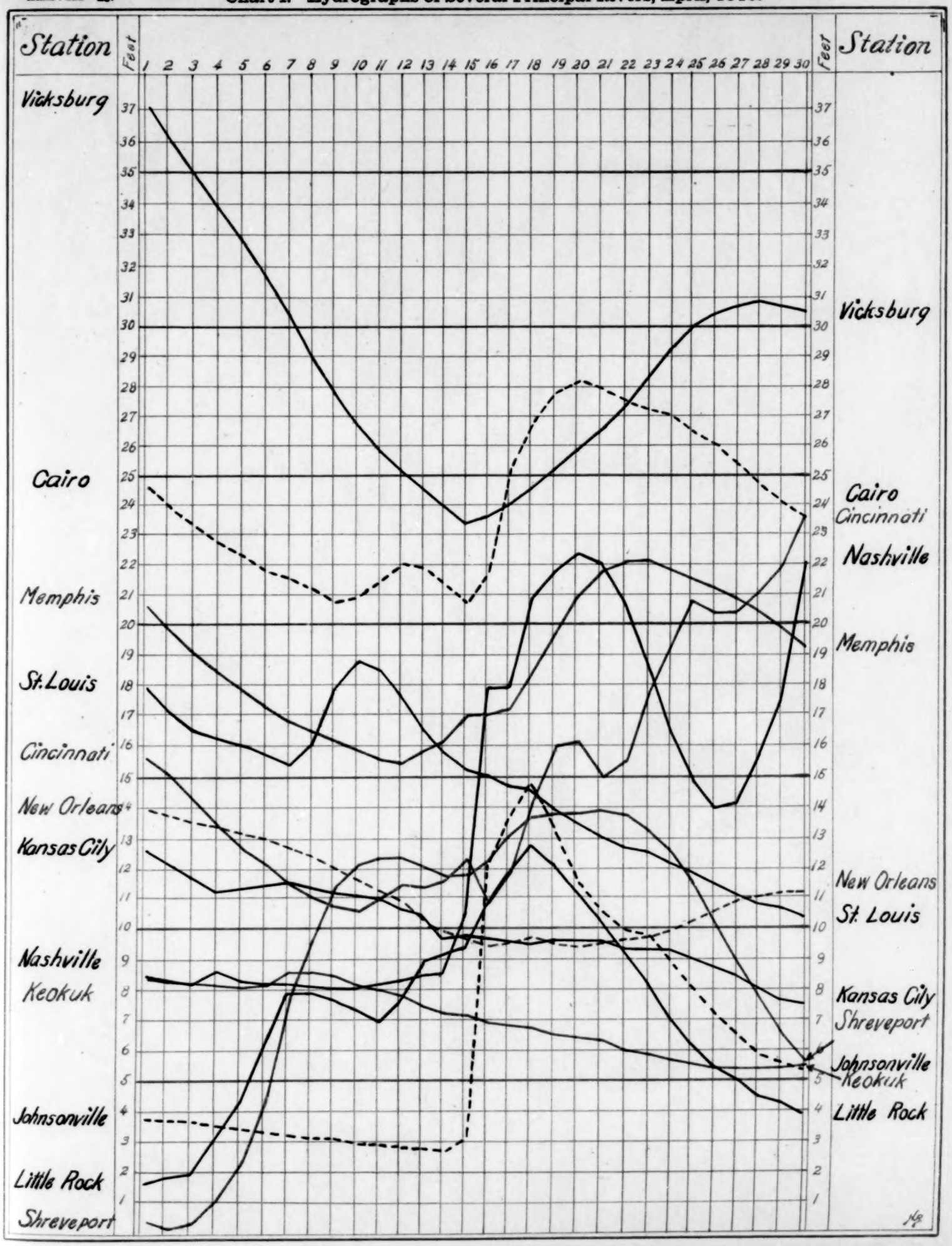

Chart II. Tracks of Centers of High Areas, April, 1910.

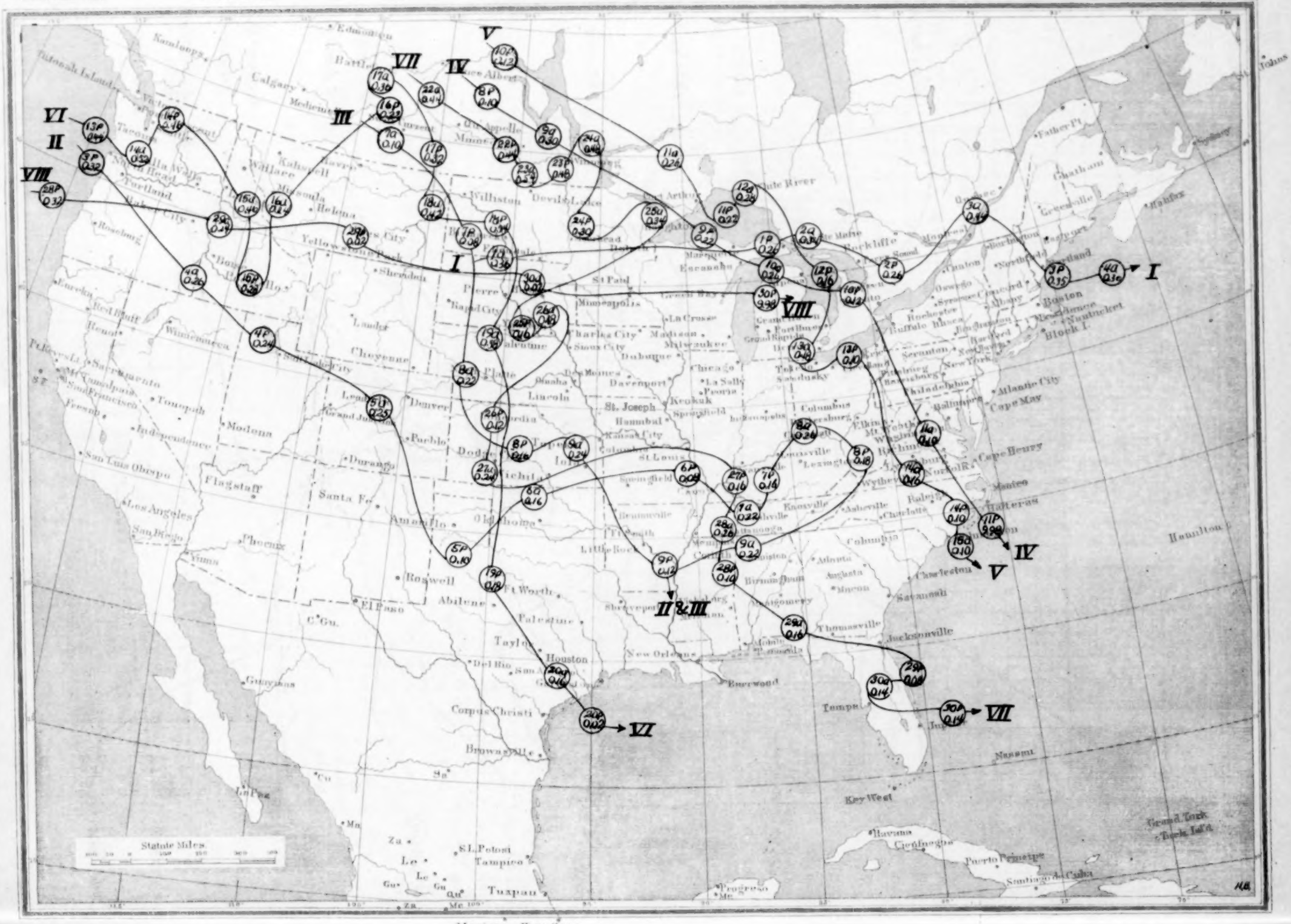

Chart III. Tracks of Centers of Low Areas, April, 1910.

Chart III. Tracks of Centers of Low Areas, April, 1910.

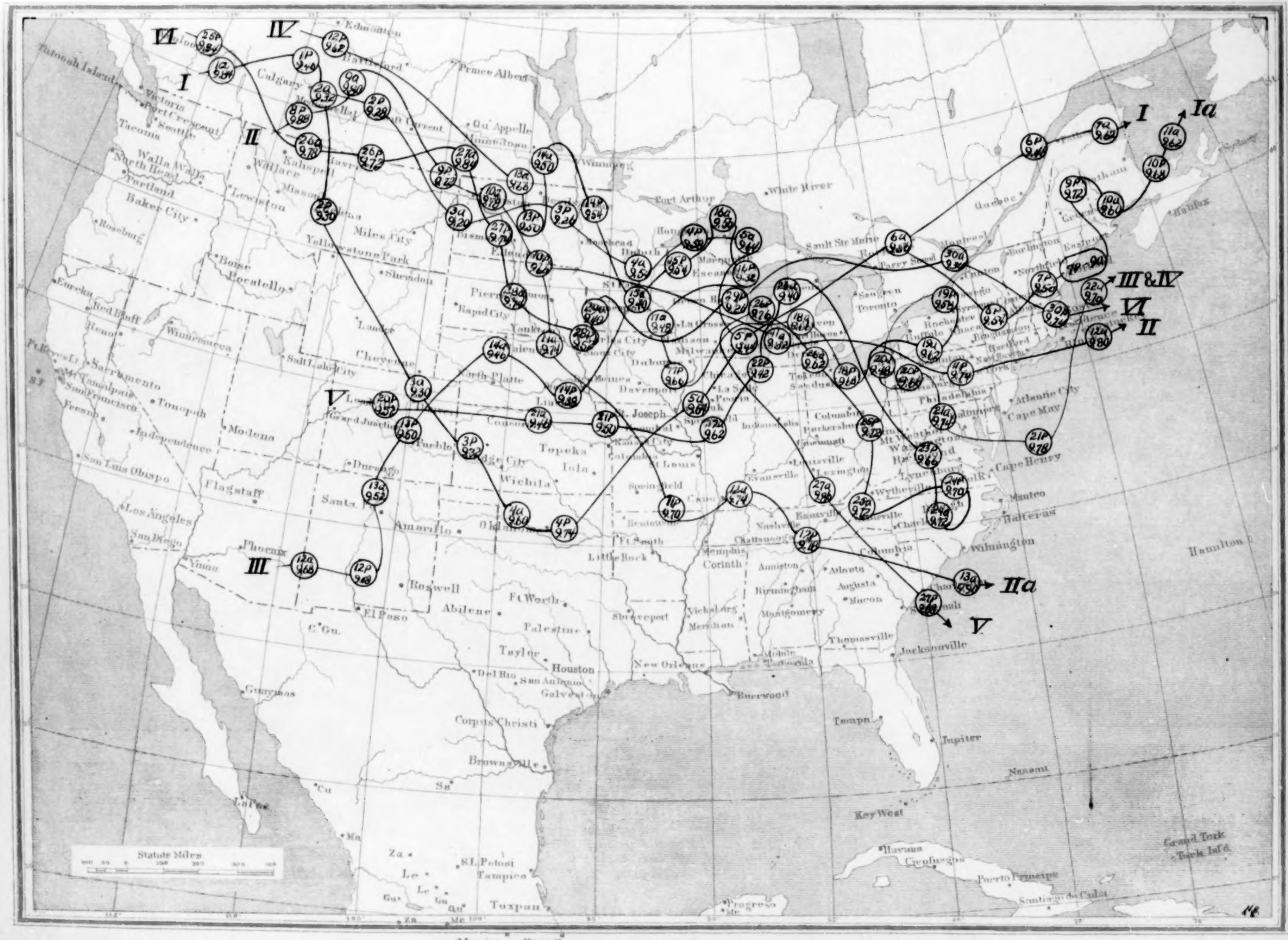

Chart IV. Departure of the Mean Temperature from the Normal, April, 1910.

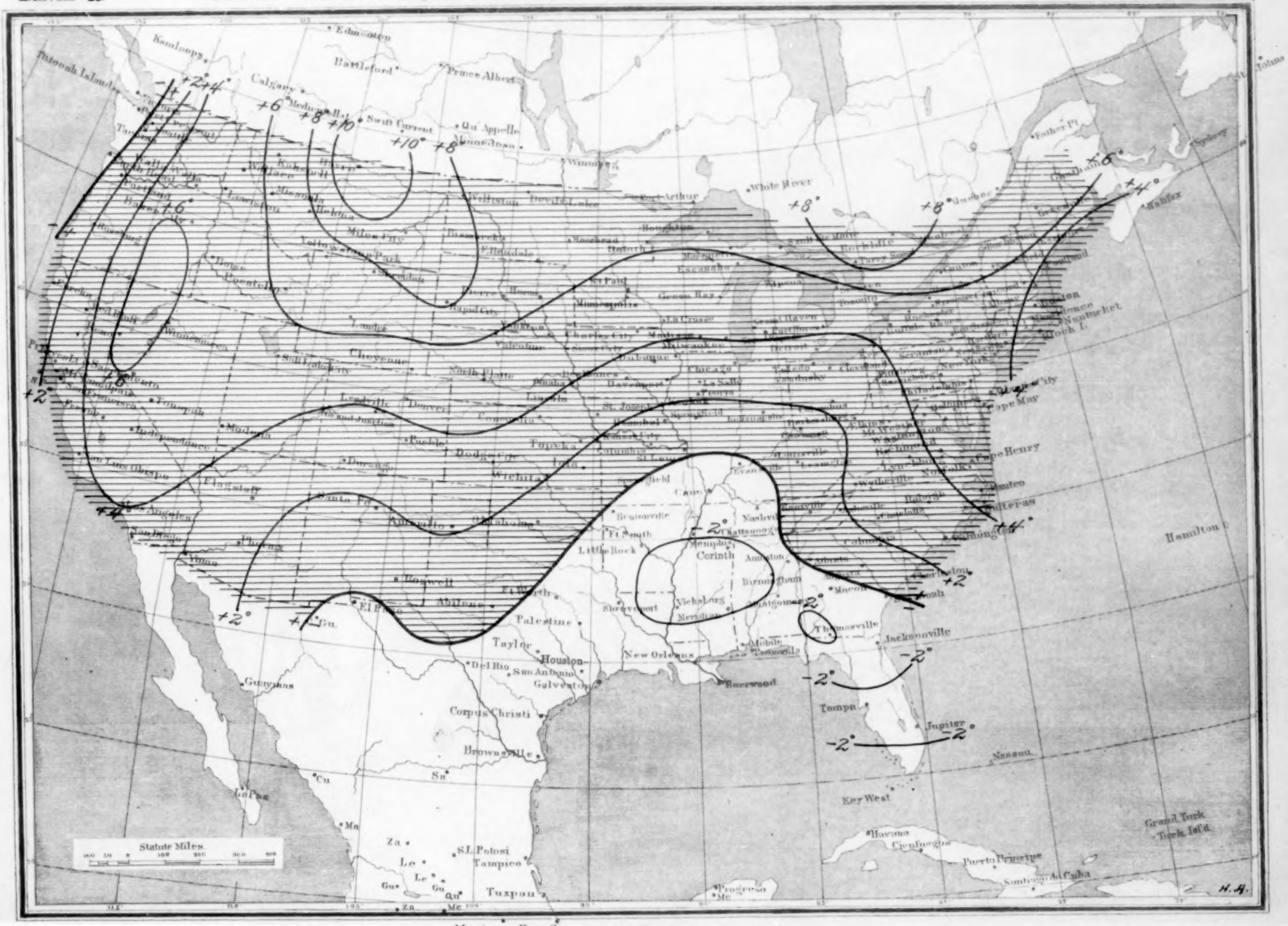

Chart V. Total Precipitation, April, 1910.

Barkerville

Mexico Vera Cruz

Chart V. Total Precipitation, April, 1910.

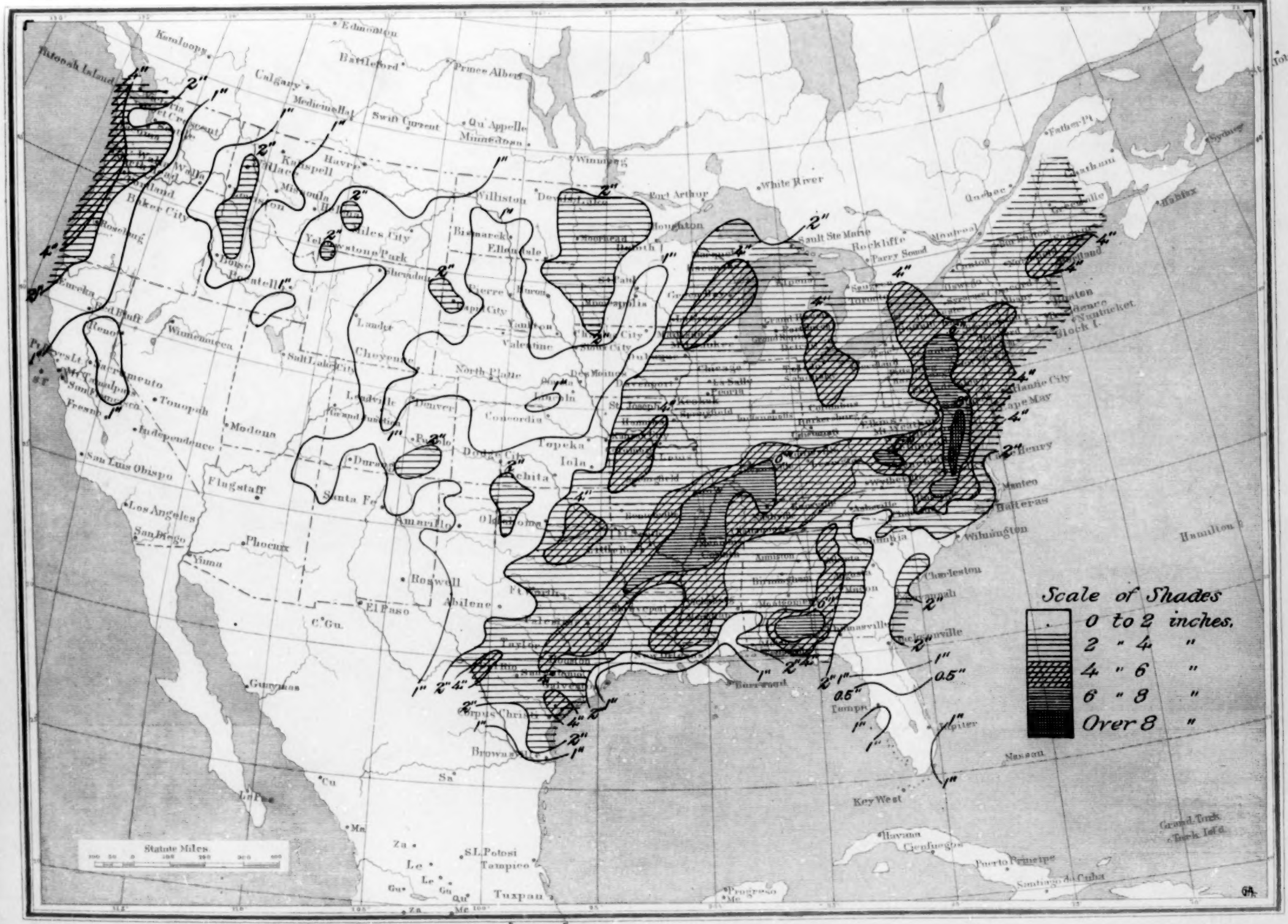

Chart VI. Percentage of Clear Sky between Sunrise and Sunset, April, 1910.

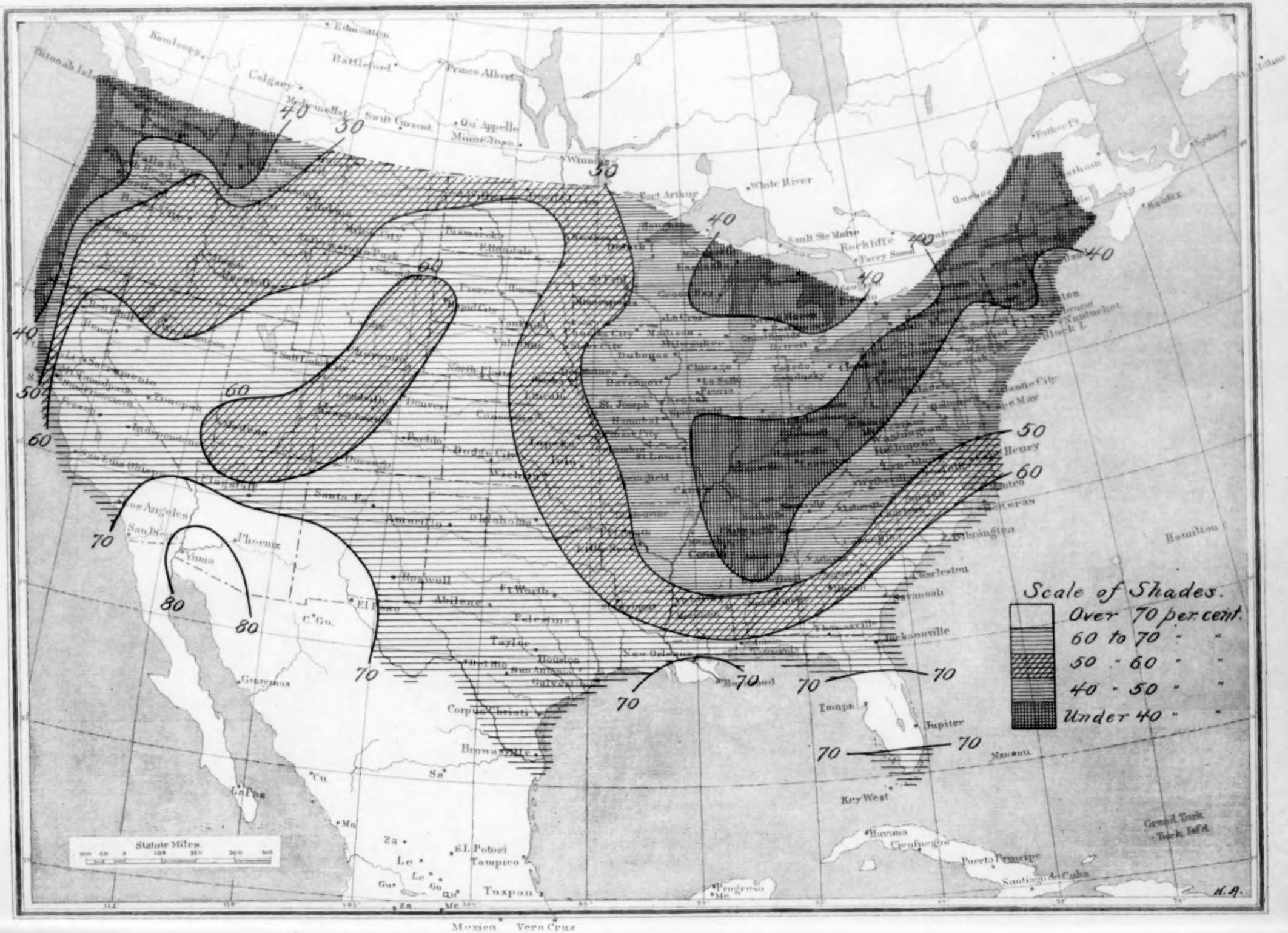

Chart VII. Isobars and Isotherms at Sea Level; Prevailing Winds, April, 1910.

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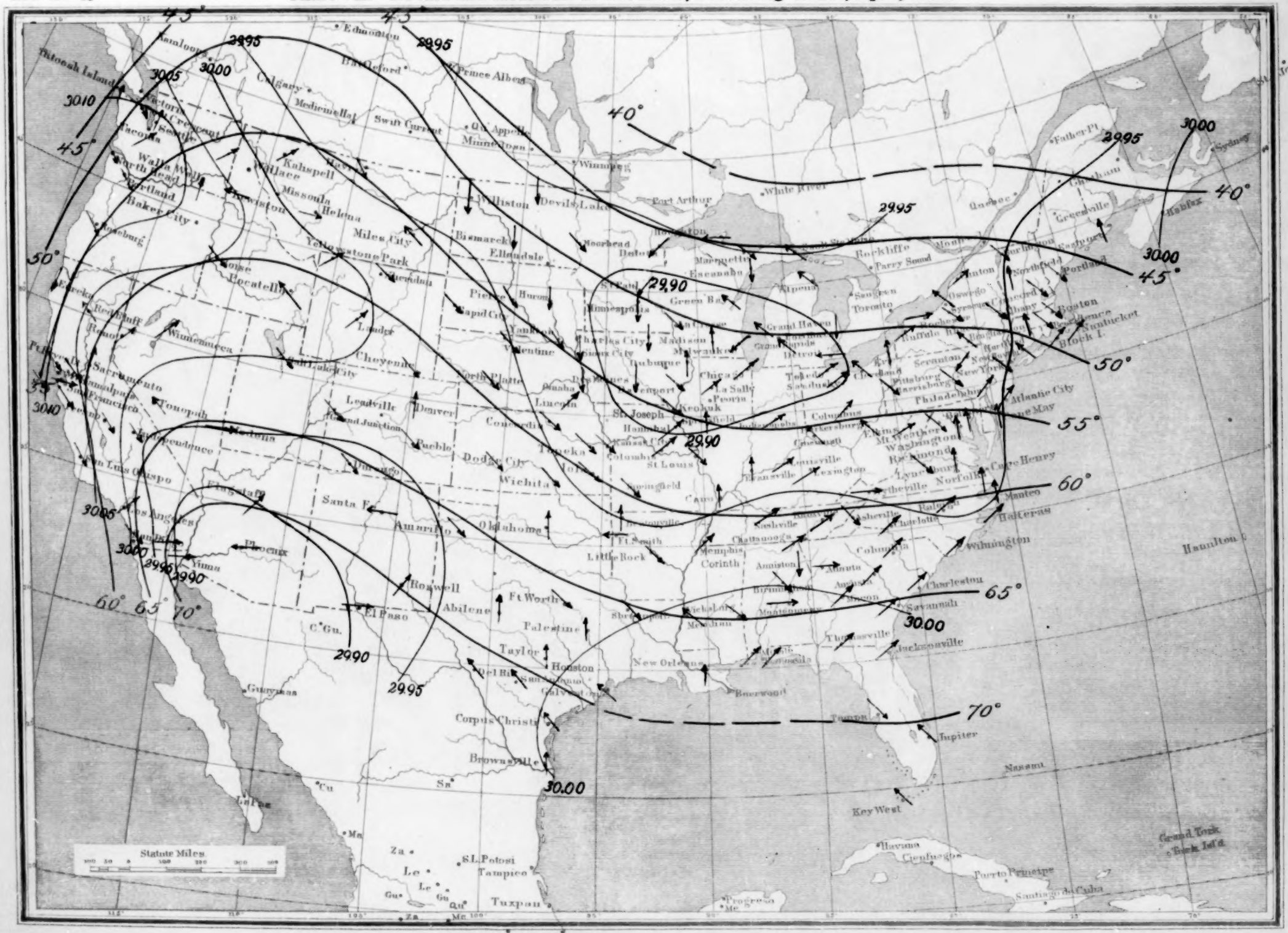
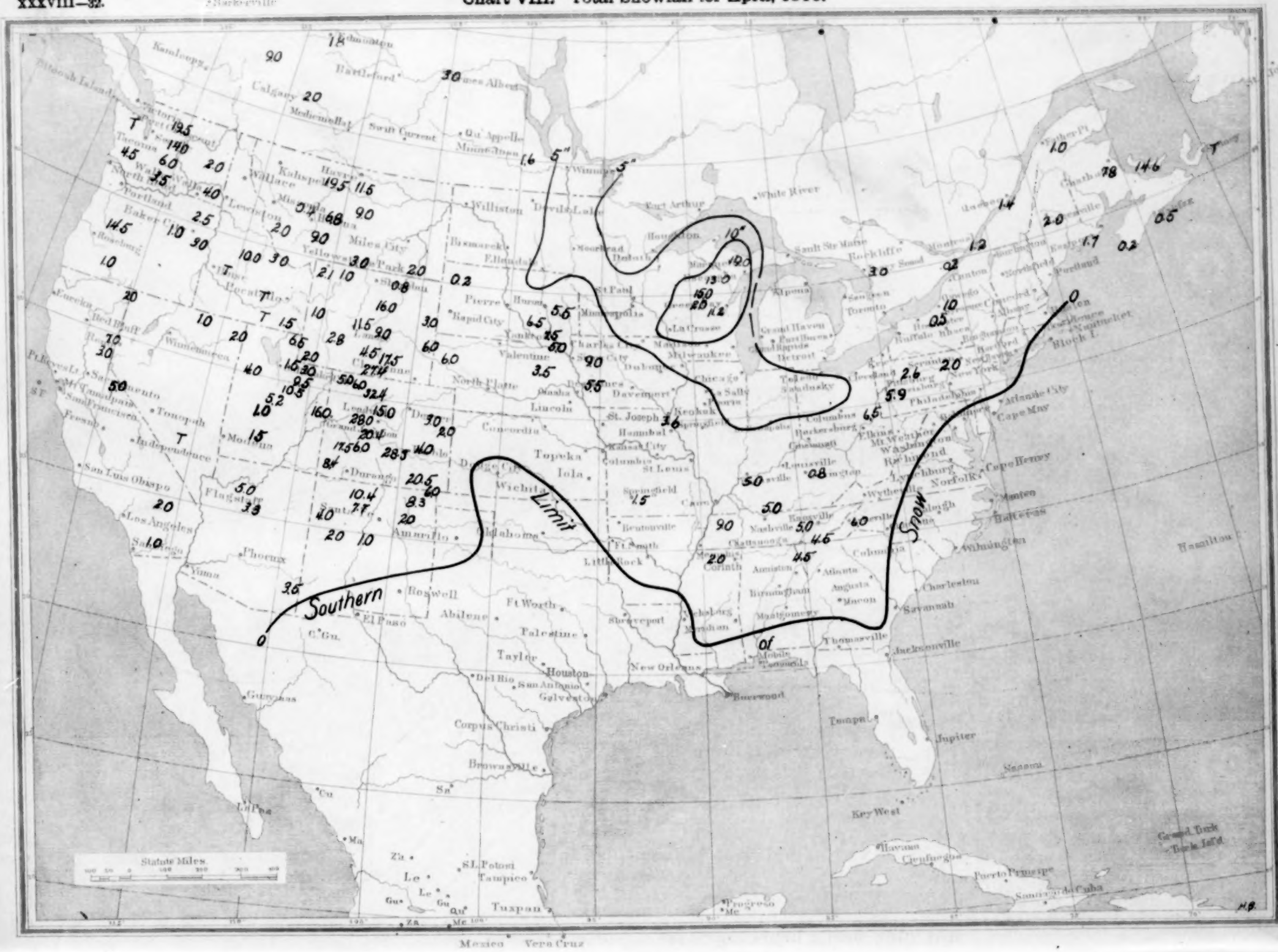
Chart VIII. Total Snowfall for April, 1910.